



PSSM at Bretton Woods, Mandatory Referral, MR2018011

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Completed: 9/20/19

Description

PSSM at Bretton Woods: MR2018011

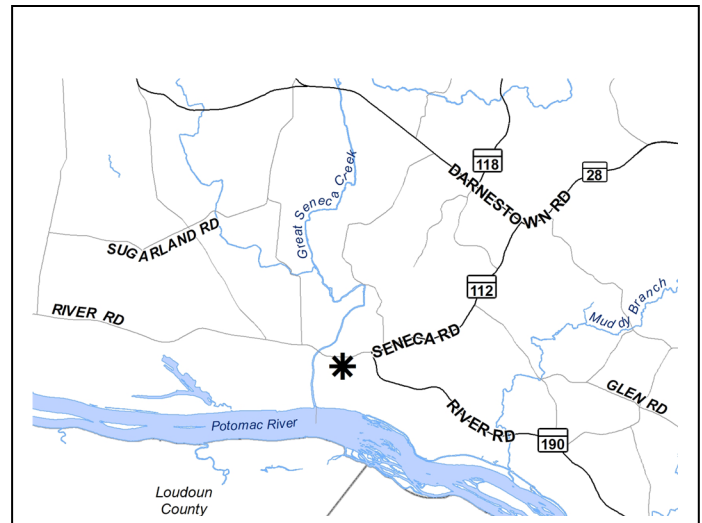
- Mandatory Referral associated with a request to construct a Public Safety System Modernization (PSSM) radio communications tower in Potomac at Bretton Woods Golf Course at 15700 River Rd.
- Zone: RC
- Property Size: 280.35 Ac
- Master Plan: 2002 Potomac Subregion

Staff Recommendation: Approval with Comments

Review Basis: Md. Land Use Code Ann. § 20-301

Applicant: Montgomery County Department of Technology Services (DTS)

Filing Date: December 1, 2017



Summary

The Applicant proposes to construct a 230-foot tall communications tower for public safety radio communications. The tower is considered a Public Use (59.3.4.9) under the Zoning Code and not a Telecommunications Facility (59.3.5.2.C). The Public Use category within the Zoning Ordinance does not provide review standards. However, because this use is similar in character to a telecommunications facility, the conditional use review standards for a telecommunications facility were used by staff to provide guidance to inform the review of the project for Planning Board consideration.

Staff recommends approval of the Mandatory Referral with comments to be transmitted to Montgomery County Department of Technology Services.

RECOMMENDATIONS:

Staff recommends approval of the Mandatory Referral with the following comments to be transmitted to Montgomery County Department of General Services:

1. There should be no outdoor storage of equipment or other items.
2. Install a sign not more than two feet square affixed to the equipment compound identifying the owner, operator, and maintenance service provider of the support structure and the emergency telephone number of a contact person.
3. Submit documentation on height and location of the tower to the Department of Permitting Services prior to final inspection of the building permit.
4. Certify that the telecommunications tower is operating within Federal Communications Commission (FCC) standards on an annual basis, in addition, an actual radio frequency (RF) measurement should be provided after the telecommunications tower is installed, and after each co-location on the subject tower.
5. The owner of the tower is responsible for maintaining the tower in a safe condition.
6. Remove the tower and equipment compound within twelve months of cessation of the use of the facility.
7. All proposed landscaping as shown on the Mandatory Referral plan should be implemented within six months of completion of the tower.

Mandatory Referral Review

This proposal for the construction of a new a Public Safety System Modernization (PSSM) radio communications tower requires the Mandatory Referral review process under the Montgomery County Planning Department's Uniform Standards for Mandatory Referral Review. State law requires all federal, state, and local governments and public utilities to submit proposed projects for a Mandatory Referral review and approval by the Commission. The law requires the Montgomery County Planning Board to review and approve the proposed location, character, grade and extent of any road, park, public way or ground, public (including federal) building or structure, or public utility (whether publicly or privately owned) prior to the project being located, constructed or authorized.

PROJECT DESCRIPTION

Project History

This Mandatory Referral was originally scheduled for Planning Board on March 8, 2018. In response to citizen concerns, and Staff's advice, the Applicant requested the application be postponed. The postponement was intended to allow the Applicant additional time to analyze alternative sites. After additional community outreach the Applicant requested that the application proceed as originally submitted.

Background

The Public Safety Systems Modernization (PSSM) Program will replace the older communications systems with a new system that supports the County's public safety agencies and personnel to protect the lives and ensure the safety of the public. The PSSM Program is a multi-department/agency multi-year \$110M capital project.

The Montgomery County Department of Technology Services (DTS) under the PSSM program has applied for this Mandatory Referral to construct a radio communications tower on the Bretton Woods Golf Course at 15700 River Road. The applicant states that, "the current system fails to provide adequate radio coverage in several areas in the County" and that the, "new base stations are sited and designed to provide complete and effective coverage according to a '95/95' coverage mandate: 95 percent coverage reliability in 95 percent of the County service area." The applicant further states that in areas where existing radio coverage is inadequate, "there are significant consequences for emergency response personnel. A lack of radio service can increase response time, the number of personnel required to effectively respond to an emergency situation, and the amount of time it takes to resolve an incident."

The applicant proposes to build a 230-foot Class III lattice tower with a 10-foot lightning rod (240-foot total height) on the south side of River Road east of Riley's Lock Road. The facility will be an unmanned public safety radio base station.

Surrounding Neighborhood

The Bretton Woods site lies at the westernmost reach of the Potomac Subregion Master Plan in the Darnestown planning area, at the eastern edge of the Agricultural Reserve, the Seneca Creek State Park and within the Seneca National Register Historic District. The area's character is expressed by contrasting lot patterns and varied scales, with narrow country roads feeding major vehicular routes to create a recognizable suburban to rural transition. The Potomac River, lined on the north by the historic Chesapeake and Ohio Canal (Canal) and tow path, defines the southern boundary of the area. River Road rises more than 100 feet from the Potomac River. The Canal's system of river-edge locks and their associated structures, richly define the vicinity and the site envelope, as do the abundant natural resources of Seneca Creek State Park, articulated by Seneca Landing and Riley's Lock (No. 24), along with Blockhouse Point Park, bounded by Violette's Lock (No. 23) on the eastern edge of Bretton Woods and

Pennyfield Lock (No. 22), further down river. Other historic resources in the vicinity include the Seneca store, the Upton Darby House, Seneca Quarry, Seneca Aqueduct, Quarry Master's House, the Overseer's House at Montevideo, and the Seneca Stone School. The subject site, although located within the Seneca National Register Historic District, does not include any historical assets, roadways support substantial traffic loads along River Road, which joins Seneca Road at the site's northeast corner. The majority of the area is zoned Rural Cluster (RC) with pockets of R-200. There are a few single family homes in the northwest corner, northeast corner, and eastern side of the Property. The closest residences to the tower location are approximately 1,000 feet away. Figure 1 shows the overall vicinity of the proposed tower site.

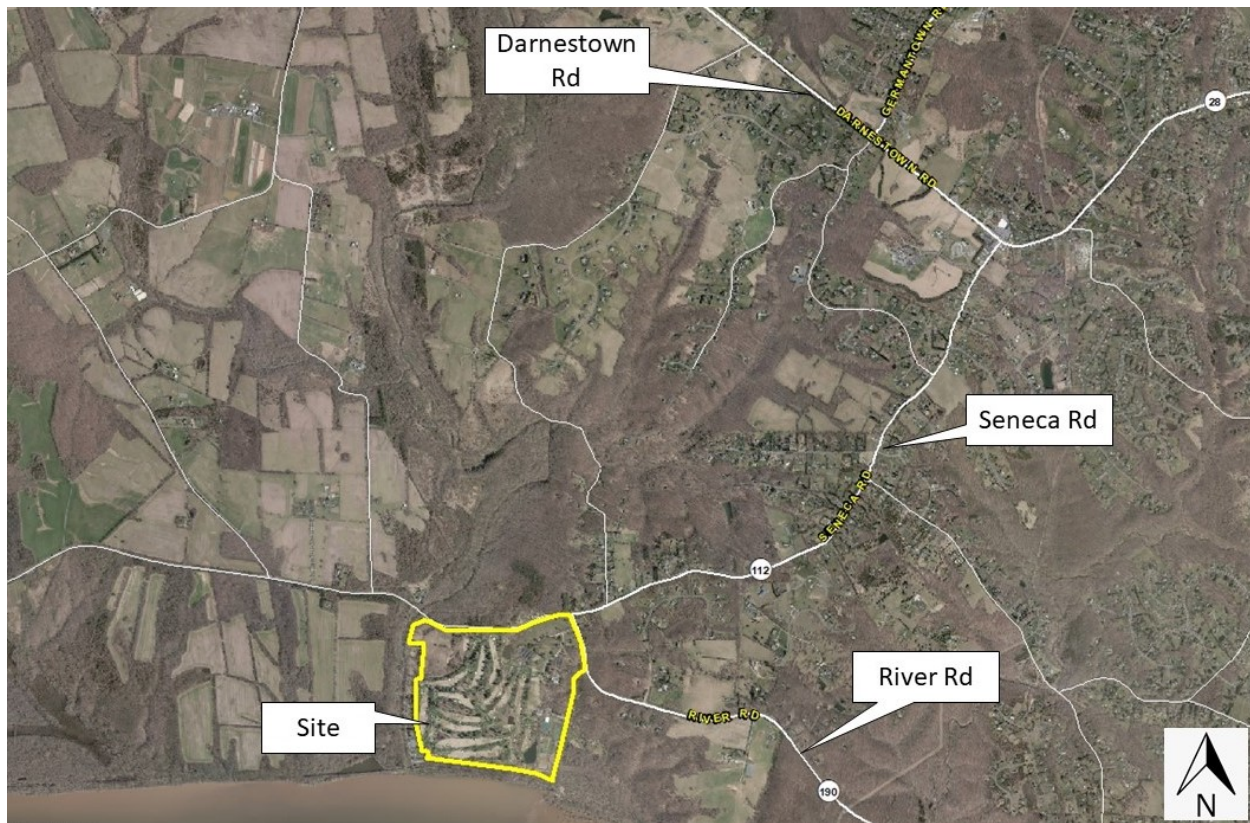


Figure 1: 2015 Aerial Photograph of the Vicinity (Bretton Woods shown in yellow)

Site Description

The Potomac River to the south, Violette's Lock Road to the east, and River Road on the north and northeast form the boundaries of the site. The 280-acre site features terrain that rises from the river, with steep slopes in the northeast quadrant of the site. The site was acquired by the International Monetary Fund (IMF) during the 1960s and Special Exception approval was granted in 1966 for the use and development of the site as a recreational club for IMF members. The Property includes an 18-hole golf course, a swimming pool complex, tennis courts, surface parking, a maintenance building, a golf cart shed and expansion, and a caretaker's house. Figure 2 shows the location of the tower site, and Figure 3 shows a view towards the proposed tower site location from the roadway.



Figure 2: 2015 Aerial of the Subject Property



Figure 3: Existing River Road on Westbound Approach to Proposed Tower Location

Proposed Project

The 230' Class III lattice tower with a 10' lightning rod will be a total of 240 feet in height. and located on the south side of River Road east of Riley's Lock Road. The industry standard red and white strobes will be installed as a beacon on the tower.

The tower will be built to Structure Class III standards, which has a "return period" of 1700 years. This means the observed wind speed is statistically likely to meet or exceed the design wind load only once every 1700 years. According to the applicant, Class III structures are capable of withstanding storms that would otherwise devastate nearby structures, and these structures are frequently among the last structures standing after a catastrophic weather event.

The site layout for the project is shown in Figures 4 and 5. The tower will be contained within a 70' x 70' pad site area in the northwest area of the Property. A 12' x 30' shelter with an internal generator will be next to the tower.



Figure 4: Site Layout Aerial

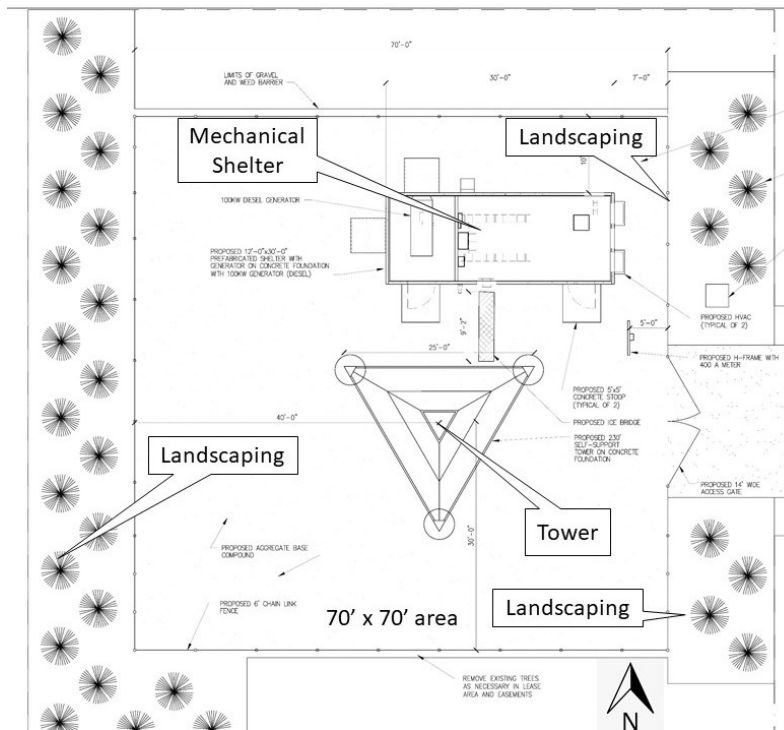
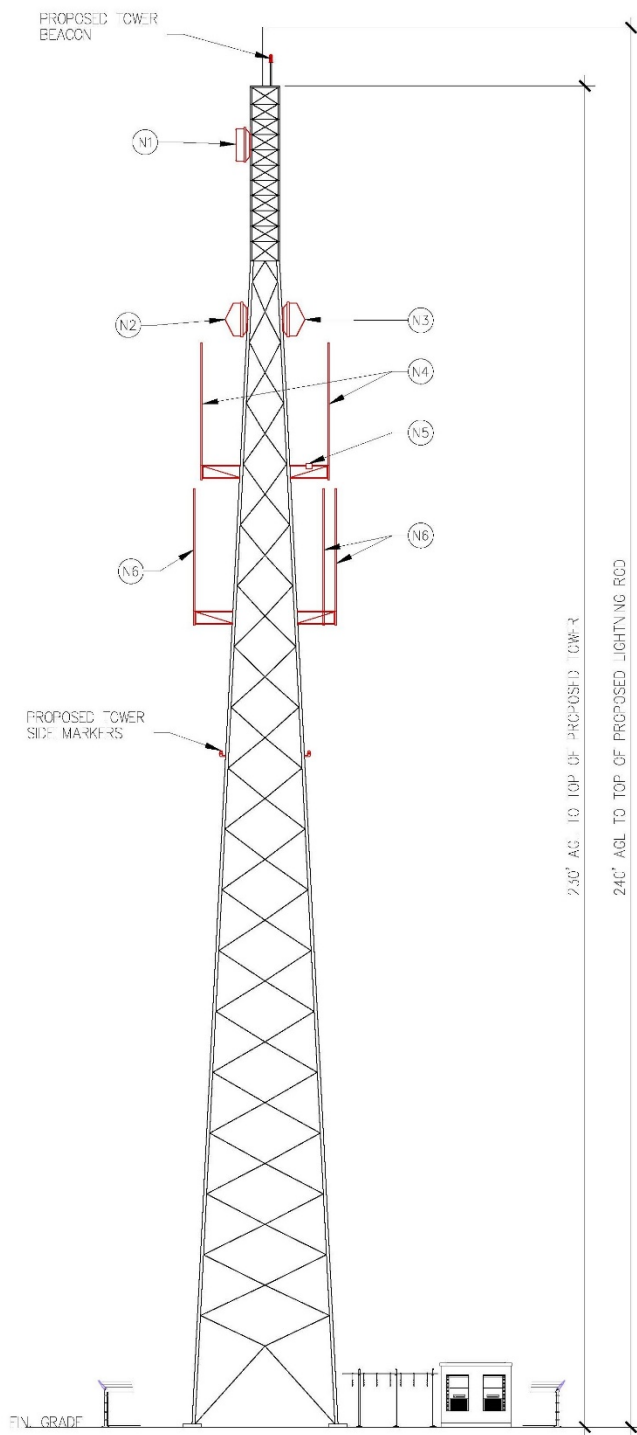


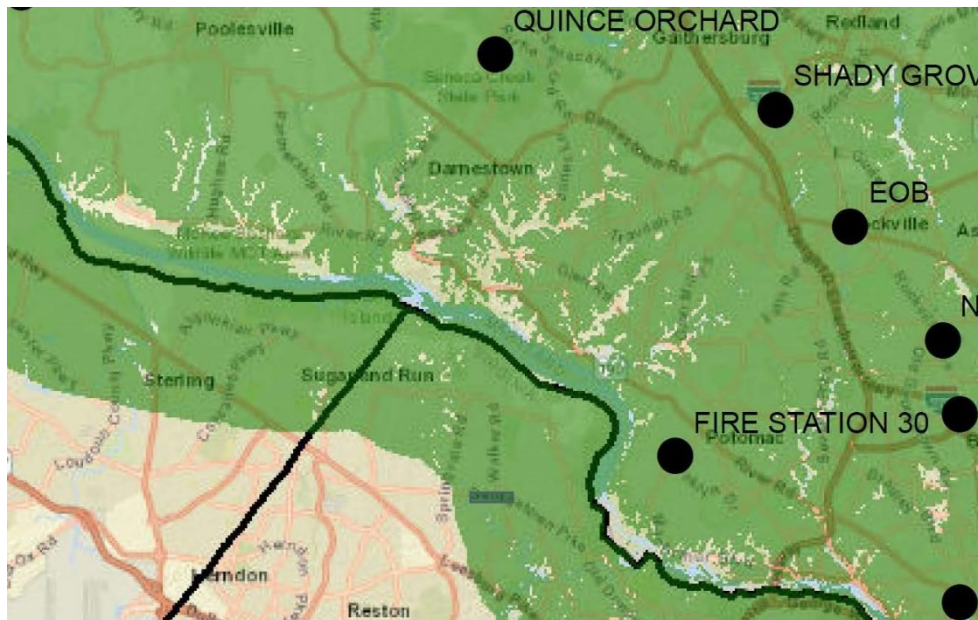
Figure 5: Compound Layout

Figure 6 shows the tower configuration and Figures 7 and 8 show the range of service coverage before and after the tower's completion.



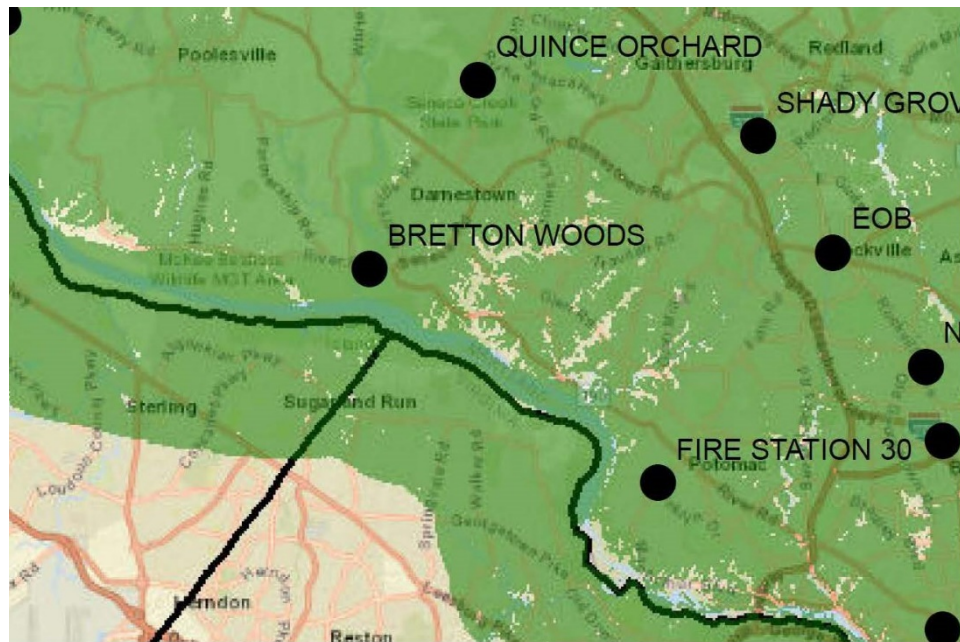
1 Tower Elevation
NOT TO SCALE

Figure 6: Tower Design



**Montgomery County P25 System with 21 Radio Sites
(Without Bretton Woods - Zoomed in)**

Figure 7: Coverage Map (in green) without Tower



**Montgomery County P25 System with 22 Radio Sites
(With Bretton Woods – Zoomed in)**

Figure 8: Coverage Map (in green) with Tower

Master Plan Consistency

The Subject Property falls within the Darnestown area of the 2002 *Potomac Subregion Master Plan*. The Master Plan does not make any specific recommendations for the Property.

The Potomac Master Plan's Land Use and Zoning Plan includes design principles intended to preserve the Potomac Subregion's "green and rural character, while creating a pedestrian and bicycle-friendly environment" (p. 33). However, none of the specific design principles apply to the type of project proposed but instead refer to more typical development of streets, neighborhoods, and communities. However, attempts should be made to help preserve the "green and rural character" of the area.

Although not a Conditional Use, the Master Plan's Special Exception (Conditional Use) Policy includes the following recommendations:

- *Limit the impacts of existing special exceptions in established neighborhoods. Increase the scrutiny in reviewing special exception applications for highly visible sites and properties adjacent to the Chesapeake & Ohio Canal National Historical Park.*
- *Avoid an excessive concentration of special exceptions along major transportation corridors.*
- *Sites along these corridors are more vulnerable to over-concentration because they have high visibility. Uses that might diminish safety or reduce capacity of roadways with too many access points or conflicting turn movements should be discouraged.*
- *Protect the Chesapeake & Ohio Canal National Park, major transportation corridors and residential communities from incompatible design of special exception uses.* (p. 35-36)

Although the proposed use is a public use facility and not a Conditional Use, it is similar in character to a telecommunications facility, which is a Conditional Use, and therefore similar guidance should help inform the review of the project. There does not appear to be a concentration of special exceptions/conditional uses along River Road, a major transportation corridor, but it is still important to increase the scrutiny in reviewing this application since the Property is a highly visible site. One guideline provided by the Master Plan is that, "efforts should be made to enhance or augment screening and buffering as viewed from abutting residential areas and major roadways" (p. 36). The Applicant has proposed landscaping around the perimeter fencing to reduce visibility of the base of the tower and mechanical shelter.

Neighborhood Compatibility

The Applicant supplied photos showing the results of a balloon test to determine the visibility of the tower from various vantage points in the area (Attachment D). The tower will be visible from several points. Although the tower will be visible from other locations in the area, the importance of the function of the tower, in staff's opinion, outweighs any affected views. Given the importance of the facility and the need to provide coverage for emergency services in this part of the County, Staff does not find undue incompatibility with the neighborhood.

Historic Preservation and Rustic Roads

Historic Preservation (HP) staff note that the proposed tower is within the Seneca Historic District, comprised of 3,850 acres of federal, state, and county parkland and farmland as well as a number of historic houses. In addition, there are a number of resources listed in the Historic Preservation Master Plan or Locational Atlas that are within the viewshed of the proposed tower. If the project received any federal funding, the proposal would be subject to review under Section 106 of the National Historic Preservation Act to avoid, minimize, or mitigate adverse effects on historic properties. Absent a review under Section 106, Historic Preservation staff recommends that the proposed tower be painted a neutral color to mitigate adverse effects to the surrounding historic sites.

The Maryland Historical Trust noted as part of the submittal that the site is located within the National Register-listed Seneca Historic District (M: 17-63). Although this portion of the historic district has been altered, the Seneca Historic District overall appears to retain integrity. No effect determinations are applied when the undertaking does not occur on a historic property or when the State Historic Preservation Officer (SHPO) concurs that the historic property has been altered or deteriorated to such a degree as it would no longer retain integrity and therefore no longer be eligible for listing in the National Register. As the historic property being directly affected by this undertaking is the Seneca Historic District, the no effect determination for the Direct Effects is inappropriate and should be changed to no adverse effect.

Zoning

The Subject Property is in the RC zone under the Montgomery County Zoning Ordinance (Chapter 59) (the "Zoning Code"). The RC zone is considered a rural residential zone.

The proposed use under the Zoning Code is "Public Use (Except Utilities)," covered by Section 3.4.9 of the Code. **A Public Use is a permitted use in all zones.** According to the Zoning Code:

Public Use (Except Utilities) means a publicly-owned or publicly operated use. Public Use (Except Utilities) includes County office buildings, maintenance facilities, public schools and parks, post office, State and Federal buildings. Public Use (Except Utilities) does not include a Public Utility Structure (see Section 3.6.7.E, Public Utility Structure).

According to Section 3.6.7.E of the Zoning Code:

Public Utility Structure means a utility structure other than transmission lines or pipelines. Public Utility Structure includes structures for the occupancy, use, support, or housing of switching equipment, regulators, stationary transformers, and other such devices for supplying electric service or other public utilities.

Section 3.4.9 does not provide review standards for a public utility structure. Although the proposed use is a public use and not a conditional use, it is similar in character to a telecommunications facility, which is a conditional use, and therefore similar guidance should inform the review of the project. Staff looked

to Section 3.5.2.C of the Code, “Telecommunications Tower,” to provide the best guidance to inform this report.

A Telecommunications Tower in the RC Zone is a Limited Use or Conditional Use in the land use table. This tower would exceed the maximum height limit (179 feet) and the size limit of the omni-directional antennae (15 feet). For these reasons Staff compared the Public Use PSSM tower to the Conditional Use standards in the Code.

In the Conditional Use process, the Hearing Examiner is the approving body for those applications. However, this application is for Mandatory Referral only and the Hearing Examiner is not involved in this Application and is only referenced below to demonstrate how the Zoning Code is written.

The Conditional Use standards for a Telecommunications Tower are numerous, but because the application is for a Mandatory Referral and not a Conditional Use, **these standards are not mandatory**; only the most pertinent standards from §59.3.5.2.C.2.c are discussed below.

i. Before the Hearing Examiner approves any conditional use for a Telecommunications Tower, the proposed facility must be reviewed by the County Transmission Facility Coordinating Group. The applicant for a conditional use must file a recommendation from the Transmission Facility Coordinating Group with the Hearing Examiner at least 5 days before the date set for the public hearing. The recommendation must be no more than 90 days old.

The Transmission Facility Coordinating Group “Recommended (approval), conditioned on approval through the Mandatory Referral process” the tower application at its January 3, 2018 meeting.

ii. A Telecommunications Tower must be set back from the property line, as measured from the base of the support structure, as follows:

(b) In Residential Detached zones, a distance of one foot for every foot of height or 300 feet from an existing dwelling, whichever provides the greater setback.

There are no existing dwelling units within 300 feet of the proposed tower location. This proposed tower does meet the recommended setback.

iii. The maximum height of a support structure and antenna is 135 feet, unless it can be demonstrated that additional height up to 179 feet is needed for service, collocation, or public safety communication purposes. At the completion of construction, before the support structure may be used to transmit any signal, and before the final inspection required by the building permit, the applicant must certify to DPS that the height and location of the support structure conforms with the height and location of the support structure on the building permit.

The proposed height of 240 feet (including lightning rod); While it does exceed the height normally allowed under a Conditional Use the height is necessary for public safety communication purposes.

iv. The support structure must be located to minimize its visual impact. Screening under Division 6.5 is not required, however, the Hearing Examiner may require the support structure to be less visually obtrusive by use of screening, coloring, stealth design, or other visual mitigation options, after considering the height of the structure, topography, existing vegetation and environmental features, and nearby residential properties.

Screening at ground level is sufficient when incorporating the existing vegetation between the tower and River Road. Additionally, the Applicant is proposing landscaping that will further buffer the equipment shelter and the base of the proposed tower. Staff has included this in their recommendations

viii. The equipment compound must have sufficient area to accommodate equipment sheds or cabinets associated with all the carriers. Outdoor storage of equipment or other items is prohibited.

The equipment compound contains an 11' 8" x 30' shelter with an internal generator next to the tower and has sufficient area inside for the required equipment. No outdoor storage is proposed.

ix. The support structure must be removed at the cost of the owner of the Telecommunications Tower when the Telecommunications Tower is no longer in use by any wireless communication carrier for more than 12 months.

Staff has included this provision in its comments.

x. The support structure must be identified by a sign 2 square feet or smaller, affixed to the support structure or any equipment building. The sign must identify the owner and the maintenance service provider of the support structure or any attached antenna and provide the telephone number of a person to contact regarding the structure. The sign must be updated and the Hearing Examiner notified within 10 days of any change in ownership.

Staff has included this provision in its comments.

xi. Each owner of the Telecommunications Tower is responsible for maintaining the wireless communications tower in a safe condition.

Staff has included this provision in its comments.

Alternative Site Analysis

Numerous alternative sites were investigated to identify sites that satisfy a) 95 percent coverage reliability, b) high level river coverage, and c) effective line-of-sight communication to the rest of the system. The majority of sites failed to satisfy one of these criteria and were eliminated for technological requirements. The Table below contains eleven sites that were considered for this tower: four of them were not technologically viable; four were privately owned and the owners denied the request for the tower. The remaining three were various county and state park properties, Calithea Farm, Blockhouse

Point Park, and Seneca Creek State Park. All three park locations were not supported by the administering agencies for various reasons.

Table 1: Alternative Site Locations

Site	Owner	Comment
Calithea Farm	County, administered by M-NCPPC Parks	- Land covenant restricting use to a park. - Land is being used as a horse farm. Tenant is leasing site from County and M-NCPPC. Part of property would have to be condemned by the County to invalidate lease.
Seneca Creek State Park	State	Filed application with State DNR. DNR advised the County not to pursue this site.
Finegan Farm HOA	HOA	owner denied request for a tower
Seneca Farm LLC	private individual	owner denied request for a tower
15107 River Rd.	private individual	owner denied request for a tower
15220 River Rd.	private individual	owner denied request for a tower
River Rd. & Partnership Rd.	private individual	not technologically viable
Broad Run Stream Valley Park (SVP)	County, administered by M-NCPPC Parks	not technologically viable
Dry Seneca Run Stream Valley Park (SVP)	County, administered by M-NCPPC Parks	not technologically viable
Sugarland SP	County, administered by M-NCPPC Parks	not technologically viable
Blockhouse Point Park	County, administered by M-NCPPC Parks	Parks indicated the County could not build a tower at this site due to a large gas pipeline running through middle of the site, its historical significance related to the Civil War, and an existing land covenant.

After these initial sites were evaluated and the Applicant engaged in dialogue with the community, additional sites were discussed and evaluated. The Applicant found an additional possible tower location on the proposed site on the east side of the property near the manager's house, but ultimately decided to proceed with the original location.

Transportation

The project will be an unmanned facility that will generate no more than 10 visits per day. Therefore, normal operations of the facility will generate less than 50 total weekday peak-hour person trips and the project is therefore exempt from the Local Area Transportation Review (LATR) test and any requirement for further traffic analysis.

According to the *2002 Potomac Subregion Master Plan*, River Road in front of the subject property has a designated right-of-way of 80 feet and is classified as an Arterial Road with two travel lanes. The subject property was platted in 1998 and 40 feet from the centerline of the road was dedicated at that time along the length of the property where this dedication was not already in place.

The 2018 Countywide Bicycle Master Plan calls for bikeable shoulders on River Road between W. Willard Road and Seneca Road. The proposed project covers only a small portion of the entire frontage of the property (less than 200 feet over the total 3,500 feet of property frontage); requiring this improvement along the entire frontage of the property is disproportional and therefore inappropriate.

FOREST CONSERVATION

The County's Forest Conservation Law, Chapter 22A, is applicable; this project is exempt under section 22A-5(f). The exemption #42018096E was confirmed by Staff on December 21, 2017.

IMPACTS TO PARKLAND

M-NCPPC Park Staff said the proposed public safety tower is on the Bretton Woods property, the proposal is adjacent to Seneca Landing Special Park but does not directly impact M-NCPPC Department of Parks property.

COMMUNITY OUTREACH AND NOTIFICATION

This Application was noticed in accordance with the Uniform Standards for Mandatory Referral Review. Several adjoining property owners and a civic association were notified.

The community meeting was held for this site on 9/26/17. There were approximately 20 attendees from the neighborhood. The discussion mainly revolved around three items: safety of the tower including setback; aesthetics of the tower including the aircraft warning light; and functioning of the radio system in general and benefits to the community. One person left in staunch opposition and one person left with concerns about it affecting their house, but generally the attendees displayed appreciation for an explanation of the project. Several were satisfied, after seeing the photo simulations, that the tower would likely not be visible from their houses.

There has been ongoing communication between the Applicant, County officials, and the community. The Applicant decided it was best to move forward with the Application as originally submitted. The main concern from the community is visual impacts on the area especially the Agricultural Reserve and the Seneca Historical District.

Staff has received one letter from Heritage Montgomery dated March 11, 2019 in opposition to the application especially the location of the tower and its direct impacts on the character and quality of the county's heritage resources.

Additionally, Staff has been provided correspondence that was sent directly to the County Council and Council Staff. The major themes were the placement of the tower, lack of transparency between County DTS Staff and the community, and that despite the efforts of all agencies involved that the original location was selected and not the alternate location near the manager's house on the Bretton Woods property.

CONCLUSION

Staff recommends that the Planning Board approve the Mandatory Referral and transmit to the Department of Technological Services the comments and recommendations of this report.

The current first responders radio system fails to provide adequate radio coverage in several areas in the County, including the Potomac River area. The manufacturer's support for the existing voice radio system began being phased out at the end of 2009. The proposed PSSM tower will fill in the coverage gap in the Potomac River area and will provide greater reliability, allowing police, fire, medical, and other first responders to react more quickly and efficiently in an emergency. The Applicant has demonstrated that the proposed location is well suited to cover the part of the County surrounding Potomac River. The Class III structural standards provide an extremely safe facility.

As a Public Use, the proposed tower is not required to meet the standards of a Telecommunications Tower. However, Staff applied Telecommunications Tower review criteria to this project and finds that it meets most of these standards; Staff has recommended that many of these standards be applied to this project. The failure to locate the facility within a transmission line right-of-way and the exceedance of the antenna size standards are acceptable for a project that serves the health, safety, and welfare of the public.

Attachment A – Mandatory Referral Package
Attachment B – Community Correspondence
Attachment C – Original Application Postponement Requests
Attachment D – Site Photo Simulation of Impacts (Balloon Test)

Attachment A

Montgomery County Planning Department
Maryland-National Capital Park and Planning Commission

Re: Montgomery County Department of Technology Services
Radio Communications Services
Public Safety System Modernization Project
Site: Bretton Woods
15700 River Road
39°04'40.32"N, 77°20'14.66"W

Please accept the enclosed application and materials in support of Montgomery County Radio Communications Services' proposal to construct a new tower facility at the location described above.

RCS, part of the Montgomery County Department of Technology Services, operates communications networks for the use of Montgomery County emergency services, including police, fire, and medical first responders. RCS is tasked with ensuring that these emergency responders have effective and reliable radio coverage throughout the County coverage area.

When the 800 MHz radio system was first deployed in Montgomery County, technical barriers limited the number of base stations that could be developed. The current system fails to provide adequate radio coverage in several areas in the County, particularly as the County continues to modernize and urbanize. New technologies currently being implemented, however, will allow the development of additional sites to expand radio coverage.

These new base stations are sited and designed to provide complete and effective coverage according to a "95/95" coverage mandate: 95% coverage reliability in 95% of the County service area. Coverage reliability is calculated according to expected loss "zones" throughout the County. The County service area includes all areas within the border of Montgomery County, Maryland, including waterways, and all areas within three miles of the County border. New base stations must be sited within the existing network framework to provide optimum coverage and reliability.

Effective public safety radio serves the public health, safety, and welfare of Montgomery County residents. Where no existing site can provide adequate radio coverage, there are significant consequences for emergency response personnel. A lack of radio service can increase response time, the number of personnel required to effectively respond to an emergency situation, and the amount of time it takes to resolve an incident.

RCS is proposing to construct a new tower at the location described above to fill coverage gaps left by the existing legacy system. The proposed site would consist of a 230' lattice tower, designed to support RCS antennas and equipment, and an associated compound at the base of the tower.

If you have any questions or concerns, or need any further information regarding this application, please free to contact me.

Sincerely,

Justin David Blanset
Network Building + Consulting

908.902.9110
jblanset@nbcllc.com

Statements of Compliance

This submission complies with the requirements of the Montgomery County Mandatory Referral submission guidelines as follows.

- 1) The proposed facility is an unmanned communications facility. There will be no regular occupation of the compound or associated shelter. Routine maintenance will not exceed 2 visits per month. As such:
 - a. The facility operates 24 hours a day, 7 days a week, as a radio communications base station.
 - b. The facility conforms in all respects to the General Plan. As an unmanned radio site for county public safety use, it has no notable effect on long or short term land development. The build-out plan for the Montgomery County Public Safety Radio Communications System is designed to accommodate and support the Wedges and Corridors concept.
 - c. As an unmanned facility outside the right of way, the facility has no impact on pedestrian and bicycle traffic. The facility's use as a public safety radio base station will promote pedestrian and cyclist safety in the area.
 - d. No new roadway is proposed.
 - e. A Historic Work Permit will be acquired if the National Environmental Policy Act determines an effect on County-designated historic properties. No effect is expected.
 - f. There is no phasing plan; the construction will begin once all applicable approvals and permits are obtained.
 - g. The subject property is in private ownership in fee simple. The County will maintain a lease to the subject area of the property.
 - h. The project is funded by County funds specifically designated for the project.
 - i. No impact is expected on public parkland or lands owned by M-NCPPC, as the project is proposed on private property. The facility's use as a public safety radio base station will promote safe enjoyment of parkland in the area.
 - j. LEED certification is not applicable to this type of facility.
- 2) The general location map is included in the enclosed drawings.
- 3) The site plan is included in the enclosed drawings.
- 4) Utilities and affected rights of way are included in the enclosed drawings.
- 5) Site ingress and egress are shown in the enclosed drawings, including the proposed site access driveway.
- 6) A Natural Resource Inventory is included with this submission.
- 7) The subject property is not in a Special Protection Area.
- 8) To the extent applicable, a waiver is requested from Forest Conservation Plan requirements.
- 9) Topographic contours are shown in the enclosed drawings.
- 10) Stormwater impact calculations are shown on the enclosed drawings. To the extent required, a Stormwater Concept Plan or Sediment Control Plan will be submitted to the Department of Permitting Services.
- 11) Landscaping plans are shown on the enclosed drawings. No exterior lighting is proposed aside from that required by the Federal Aviation Administration, subject to an Air Hazard Navigation Report.
- 12) The proposed facility is part of the Public Safety System Modernization Project. An area map showing the location of all affected radio communications sites is included.
- 13) The proposed facility complies with the Montgomery County Noise Ordinance, Section 31(b) of the Montgomery County Code, and is consistent with the Montgomery County Department of Park and

Planning Noise Guidelines. The site will not produce noise in excess of that allowed by the ordinance or guidelines.

14) All relevant architectural diagrams are included in the enclosed drawings.

15) No traffic impact is expected. The facility is unmanned and unoccupied, and routine maintenance visits are expected to be limited to one visit twice per month.

PROJECT DESCRIPTION

INSTALLATION OF ANTENNAS, MICROWAVE DISHES, COAXIAL CABLE, AND ASSOCIATED MOUNTS ON A PROPOSED 230' SELF-SUPPORT TOWER.
INSTALLATION OF A 12'-0"x30'-0" UNMANNED EQUIPMENT SHELTER ON CONCRETE FOUNDATION.
PROPOSED ELECTRIC SERVICE TO SITE AND EQUIPMENT SHELTER. NO WATER SUPPLY OR SEWAGE TO/FROM THE SITE.

SITE NAME:

BRETTON WOODS

SITE ADDRESS:

15700 RIVER ROAD
GERMANTOWN, MD 20874

SITE COORDINATES

LATITUDE - N 39° 4' 40.32"
LONGITUDE - W 77° 20' 14.66"

SITE INFORMATION

LANDLORD

INTERNATIONAL MONETARY FUND

APPLICANT

JUDY MILLER
PSSM RADIO SYSTEM INFRASTRUCTURE PROJECT,
DEPARTMENT OF TECHNOLOGY SERVICES
MONTGOMERY COUNTY
PH: (240) 773-7214

CONTACT

PAUL KETNER
MOTOROLA SOLUTIONS
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PROJECT MANAGER

PYRAMID NETWORK SERVICES, LLC
KEVIN GLARDON
PH: (513) 228-2992
EMAIL: KGLARDON@PYRAMIDNS.COM

ARCHITECTURAL AND ENGINEERING

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EMAIL: SHARTMAN@M1COMM.COM

CONSULTANT TEAM

LUCAS COUNTY REPRESENTATIVE :	RECEIVED :
	ACCEPTED :
MOTOROLA :	RECEIVED :
	ACCEPTED :
PROPERTY OWNER:	RECEIVED :
	ACCEPTED :
RECEIVED AND ACCEPTED	



DIRECTIONS TO SITE

O	09-25-17	ZONING DRAWING	RNV	SAH	
M	09-22-17	ZONING REVIEW SET	RNV	SAH	
L	09-20-17	REVISED LANDSCAPING PLAN	SAH	SAH	
K	09-19-17	REVISED LANDSCAPING PLAN	SAH	SAH	
J	09-15-17	REMOVED WMATA EQUIPMENT	SAH	SAH	
NO.	DATE	REVISIONS	BY	CHK	APP'D



PROJECT INFORMATION, LOCATION MAPS, AND DRAWING INDEX	
BRETTON WOODS GOLF COURSE 15700 RIVER RD. GERMANTOWN, MD 20874 PLAN #MR2018011	PRINTED AT 24x36

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BRETTON WOODS

15700 RIVER RD.
GERMANTOWN, MD 20874
MONTGOMERY COUNTY

PLAN NO. MR2018011



VICINITY MAP

MAP PROVIDED BY GOOGLE MAPS



LOCATION MAP

AERIAL MAP PROVIDED BY GOOGLE EARTH

DRAWING INDEX

T-1 PROJECT INFORMATION, LOCATION MAPS, AND DRAWING INDEX

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PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED AND PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 48984, EXPIRATION DATE 03/14/18

GENERAL REQUIREMENTS

1.1. SUMMARY OF WORK

A. THE WORK MAY CONSIST OF, BUT NOT BE LIMITED TO, THE INSTALLATION OF EQUIPMENT CABINETS, ANTENNAS ,AND LINES. FUEL TANKS, GROUNDING, ELECTRICAL WORK, ETC., ASSOCIATED WITH THE MOTOROLA EQUIPMENT AS INDICATED ON DRAWINGS AND AS SPECIFIED HEREIN. CONTRACTOR SHALL SUPPLY ALL PERMANENT MATERIALS/EQUIPMENT REQUIRED AND ALL LABOR, EQUIPMENT, TOOLS, UTILITIES, MINOR HARDWARE/MATERIALS, TRANSPORTATION AND FACILITIES NECESSARY FOR PROPER EXECUTION AND COMPLETION OF SERVICES AND INSTALL WORK, WHETHER TEMPORARY OR PERMANENT. CONTRACTOR SHALL BE OBLIGATED TO PERFORM ALL THE WORK OUTLINED IN THESE DRAWINGS IN ACCORDANCE WITH THE CONTRACT AGREEMENT, FEDERAL REGULATIONS, STATE REQUIREMENTS, LOCAL CODES, COMMERCIAL/INDUSTRY STANDARDS, DETAILED SCOPE OF WORK AND THE DOCUMENTS IDENTIFIED BELOW. IN CASE OF A CONFLICT BETWEEN THE ABOVE LISTED DOCUMENTS REGARDING STANDARDS OF WORK, THE MORE STRINGENT CRITERIA SHALL APPLY. ANY ADDITIONAL COSTS OR DELAYS RESULTING FROM CORRECTION OF THE WORK TO COMPLY WITH THE ABOVE REQUIREMENT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

1.2. SITE VISIT

CONTRACTOR SHALL VISIT THE SITE AND FAMILIARIZE ITSELF WITH THE SCOPE OF WORK REQUIRED PER THE DRAWINGS AND ALL LOCAL CONDITIONS AND LAWS AND REGULATIONS THAT MAY IN ANY MANNER AFFECT THE PRICE, PROGRESS AND PERFORMANCE OF WORK, INCLUDING ANY COSTS ASSOCIATED WITH IT. THE CONTRACTOR SHALL ALSO VERIFY THAT THE PROJECT CAN BE CONSTRUCTED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND NOTIFY THE MOTOROLA REPRESENTATIVE OF ANY DISCREPANCIES OR INTERFERENCES WHICH AFFECT THE WORK OF THIS CONTRACT.

1.3. STANDARDS AND CODES

THE FOLLOWING DOCUMENTS (LATEST REVISION) SHALL BE CONSIDERED TO BE SPECIFICATION AND ARE INCORPORATED HEREIN BY REFERENCE. IN THE EVENT OF CONFLICT BETWEEN THE REQUIREMENTS OF THIS SPECIFICATION AND THE REQUIREMENTS OF THE REFERENCED DOCUMENTS, THE STRICTER SPECIFICATION SHALL GOVERN. WHERE PROVISIONS OF THE CODES AND STANDARDS ARE IN CONFLICT WITH THE BUILDING CODE IN FORCE FOR THIS PROJECT, THE BUILDING CODE SHALL GOVERN.

A. AMERICAN CONCRETE INSTITUTE:

•ACI 301 – "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS".

•ACI 305 "HOT WEATHER CONCRETING".

•ACI 306 "COLD WEATHER CONCRETING".

•ACI 318 "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE."

•ACI 614 "RECOMMENDED PRACTICE FOR MEASURING, MIXING AND PLACING CONCRETE".

•ACI 311 "RECOMMENDED PRACTICE FOR CONCRETE INSPECTION".

•ACI 315 "MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES".

•ACI 613 "RECOMMENDED PRACTICE FOR SELECTING PROPORTIONS FOR CONCRETE".

B. AMERICAN NATIONAL STANDARDS INSTITUTE:

•ANSI Z359 REQUIREMENTS FOR PERSONAL FALL ARREST SYSTEMS, SUBSYSTEMS AND COMPONENTS

•ANSI Z87.1 OCCUPATIONAL AND EDUCATIONAL EYE AND FACE PROTECTION

•ANSI Z89.1 PROTECTIVE HEADWEAR FOR INDUSTRIAL WORKERS –REQUIREMENTS

•ANSI/IEEE C95.1 SAFETY LEVEL..S WITH RESPECT TO HUMAN EXPOSURE TO RADIO FREQUENCY ENERGY

•ANSI/TLA/EIA STANDARD 222: STRUCTURAL STANDARDS FOR STEEL ANTENNA TOWERS AND ANTENNA SUPPORTING STRUCTURES.

C. AMERICAN INSTITUTE OF STEEL CONSTRUCTION"

•AISC MANUAL OF THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION: LATEST EDITION

D. AMERICAN SOCIETY FOR TESTING AND MATERIALS:

•ASTM A615 – "SPECIFICATION FOR DEFORMED AND PLAIN BILLET STEEL BARS FOR CONCRETE REINFORCEMENT".

•ASTM C94-80 – "SPECIFICATION FOR READY-MIX CONCRETE".

•ASTM C39-77 – "SPECIFICATION FOR TEST FOR COMPRESSIVE STRENGTH OF CYLINDRICAL CONCRETE SPECIMEN".

•ASTM 33 – "SPECIFICATION FOR CONCRETE AGGREGATES".

•ASTM C150 – "SPECIFICATION FOR PORTLAND CEMENT".

•ASTM C172 – "SAMPLING FRESH CONCRETE".

•ASTM C143 – "SLUMP OF PORTLAND CEMENT CONCRETE".

•ASTM D698-91 – "TEST METHOD FOR LABORATORY COMPACTION CHARACTERISTICS OF SOIL USING STANDARD EFFORT".

•ASTM D1556-84– – "DENSITY OF SOIL IN PLACE BY THE SAND-CONE METHOD".

•ASTM D1557 – "TEST FOR MOISTURE-UNIT WEIGHT RELATIONS OF SOILS AND SOIL-AGGREGATE MIXTURES USING 10-LB. HAMMER AND 18-IN. DROP". (PROCEDURE C)

•ASTM D2487 – "STANDARD CLASSIFICATION OF SOILS FOR ENGINEERING PURPOSES (UNIFIED SOIL CLASSIFICATION SYSTEM)"9

•ASTM D2922 – "DENSITY OF SOIL AND SOIL AGGREGATE IN PLACE BY NUCLEAR METHODS SHALLOW DEPTH".

•ASTM D2940 – "STANDARD SPECIFICATION FOR GRADED AGGREGATE MATERIAL FOR BASES OR SUB-BASES FOR HIGHWAYS OR AIRPORTS"

E. AMERICAN WELDING SOCIETY:

•AWS D12.1 – "RECOMMENDED PRACTICES FOR WELDING REINFORCING STEEL. METAL INSERTS AND CONNECTIONS IN REINFORCED CONCRETE CONSTRUCTION".

F. CONCRETE REINFORCING STEEL INSTITUTE:

•"MANUAL OF STANDARD PRACTICE"

G. FEDERAL AVIATION ADMINISTRATION:

•DEPARTMENT OF TRANSPORTATION – FEDERAL AVIATION ADMINISTRATION ADVISORY CIRCULAR, AC 70/7460-1G: OBSTRUCTION MARKING AND LIGHTING.

•DEPARTMENT OF TRANSPORTATION – FEDERAL AVIATION ADMINISTRATION ADVISORY CIRCULAR, 150-5345-43, FAA/DOD SPECIFICATION L-856: HIGH INTENSITY OBSTRUCTION LIGHTING SYSTEMS.

H. FEDERAL COMMUNICATIONS COMMISSION:

•FEDERAL COMMUNICATIONS COMMISSION – RULES AND REGULATIONS PART 17, CONSTRUCTION, MARKING, AND LIGHTING OF ANTENNA STRUCTURES.

G. STRUCTURAL STEEL PAINTING COUNCIL:

•SSPC-SP-1-63: SPECIFICATION FOR PAINTING STEEL STRUCTURES.

I. MOTOROLA R56 STANDARDS AND GUIDELINES FOR COMMUNICATIONS SITES (LATEST REVISION).

K. MOTOROLA’S CIVIL WORKS BID SPECIFICATIONS

L. NATIONAL FIRE PROTECTION ASSOCIATION:

•2015 NFPA 1 – FIRE PREVENTION CODE

•2015 NFPA 101 – LIFE SAFETY CODE

•2015 NFPA 111 – STANDARD ON STORED ELECTRICAL ENERGY, EMERGENCY AND STANDBY POWER SYSTEMS

•2015 NFPA 780 – STANDARD FOR THE INSTALLATION OF LIGHTNING PROTECTION SYSTEMS

M. OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION:

•OSHA 1926

•OSHA DIRECTIVES CPL 2-1.29 – INTERIM INSPECTION PROCEDURES DURING COMMUNICATION TOWER CONSTRUCTION ACTIVITIES.

N. MARYLAND STATE BUILDING AND ELECTRICAL CODE, OR AHJ CODES.

•2015 INTERNATIONAL BUILDING CODE

•2014 NATIONAL ELECTRIC CODE

•2015 INTERNATIONAL FIRE CODE

1.4. NOTICE TO PROCEED

WHEN THE SITE IS READY FOR INSTALLATION, MOTOROLA SHALL ISSUE A NOTICE TO PROCEED TO THE CONTRACTOR. UPON RECEIPT OF THE NOTICE OF PROCEED. THE CONTRACTOR SHALL SUBMIT TO MOTOROLA A SCHEDULE REFLECTING THE WORK PLAN. THE CONTRACTOR SHALL ADVISE THE MOTOROLA REPRESENTATIVE IMMEDIATELY OF ANY SCHEDULE CHANGES. THE CONTRACTOR SHALL ADJUST HIS WORK, AS REQUIRED, TO COORDINATE WITH THE MOTOROLA INSTALLATION TEAM IF THE SCHEDULES OVERLAP.

1.5. MOTOROLA REPRESENTATIVE

MOTOROLA SHALL DESIGNATE A REPRESENTATIVE. THIS PERSON IS THE ONLY CONTACT POINT AUTHORIZED TO MAKE ANY CHANGES TO THE CONTRACT PROVISIONS OR THE PLANS AND SPECIFICATIONS. ANY CHANGES MADE BY THE CONTRACTOR ARE AT THE CONTRACTOR'S RESPONSIBILITY AND RISK.

1.6. CONTRACTORS FIELD REPRESENTATIVE

CONTRACTOR SHALL ASSIGN A FIELD REPRESENTATIVE WHO IS FAMILIAR WITH THESE SPECIFICATIONS AND WILL REPRESENT THE CONTRACTOR AND HAVE THE AUTHORITY TO ACT FOR THE CONTRACTOR AND SUPERVISE ALL CONSTRUCTION ACTIVITIES. THE AND REPRESENTATIVE SHALL BE AVAILABLE WHEN CONSTRUCTION ACTIVITIES BEGIN. THE FIELD REPRESENTATIVE SHALL BE THE PRIMARY POINT OF CONTACT FOR MOTOROLA DURING THE CONSTRUCTION PHASE OF THE WORK.

1.7. PROJECT MEETINGS

THE CONTRACTOR SHALL CONDUCT THE INITIAL (PRE-CONSTRUCTION) MEETING (INCLUDING ALL SUB-CONTRACTORS) WITH THE MOTOROLA REPRESENTATIVE WITHIN TWO WEEKS AFTER AWARD OF THE CONTRACT. SUBSEQUENTLY, THE CONTRACTOR SHALL PROVIDE PROGRESS SCHEDULE UPDATES TO MOTOROLA ON A WEEKLY BASIS.

1.8. MATERIALS

CONTRACTOR SHALL FURNISH AND INSTALL ALL MATERIALS AS REQUIRED FOR COMPLETE SYSTEMS INCLUDING: ALL PARTS OBVIOUSLY OR REASONABLY INCIDENTAL TO A COMPLETE INSTALLATION, WHETHER SPECIFICALLY INDICATED OR NOT. ALL SYSTEMS SHALL BE COMPLETELY ASSEMBLED, TESTED, ADJUSTED, AND DEMONSTRATED TO BE READY FOR OPERATION PRIOR TO MOTOROLA’S ACCEPTANCE.

MATERIALS AND WORKMANSHIP SHALL BE THE BEST OF THEIR RESPECTIVE KINDS (AS DEFINED BY INDUSTRY STANDARDS), FREE OF DEFECTS AND ALL MATERIALS SHALL BE PROPOSED AND UNUSED IN ALL CASES, UNLESS OTHERWISE SPECIFIED. WHERE THE NAME OF A CONCERN OR MANUFACTURER IS MENTIONED ON DRAWINGS OR IN SPECIFICATIONS IN REFERENCE TO A REQUIRED SERVICE OR PRODUCT, AND NO QUALIFICATIONS OR SPECIFICATION OF SUCH IS INCLUDED, THEN THE MATERIAL SPECIFICATIONS, DETAILS OF MANUFACTURE, FINISH, ETC., SHALL BE IN ACCORDANCE WITH MANUFACTURER’S STANDARD PRACTICE, DIRECTION OR SPECIFICATIONS. THE CONTRACTOR SHALL INSTALL. ALL EQUIPMENT AND MATERIALS ACCORDING TO THE MANUFACTURER’S / VENDOR’S SPECIFICATIONS UNLESS NOTED OTHERWISE OR WHERE LOCAL CODES OR ORDINANCES TAKE PRECEDENCE.

1.9. VERIFICATION OF EXISTING CONDITIONS

BEFORE STARTING ANY OPERATION, THE CONTRACTOR SHALL EXAMINE EXISTING WORK, OR WORK PERFORMED BY OTHERS, TO WHICH ITS WORK IS TO ADJOIN OR BE APPLIED. AND SHALL REPORT TO MOTOROLA PROJECT MANAGER ANY CONDITIONS THAT WILL PREVENT SATISFACTORY ACCOMPLISHMENT OF HIS WORK. PRIOR TO COMMENCING ANY EXCAVATION OR GRADING, THE CONTRACTOR SHALL SATISFY HIMSELF AS TO THE ACCURACY OF ALL SURVEY DATA AS INDICATED IN THE PLANS AND SPECIFICATIONS ANO/OR AS PROVIDED BY MOTOROLA. SHOULD THE CONTRACTOR DISCOVER ANY INACCURACIES, ERRORS, OR OMISSIONS IN THE SURVEY DATA, HE SHALL IMMEDIATELY NOTIFY THE MOTOROLA REPRESENTATIVE IN ORDER THAT PROPER ADJUSTMENTS CAN BE ANTICIPATED AND ORDERED. FAILURE TO NOTIFY THE MOTOROLA REPRESENTATIVE OF DEFICIENCIES, ERRORS OR FAULTS PRIOR TO COMMENCEMENT OF WORK SHALL CONSTITUTE ACCEPTANCE THEREOF AND WAIVER OF ANY CLAIMS OF UNSUITABILITY, ERRORS, OMISSIONS OR INACCURACIES.

THE CONTRACTOR SHALL MAKE NECESSARY PROVISIONS TO PROTECT EXISTING IMPROVEMENTS, EASEMENTS, ETC. DURING CONSTRUCTION. UPON COMPLETION OF WORK, THE CONTRACTOR SHALL REPAIR ANY DAMAGE THAT MAY HAVE OCCURRED DUE TO CONSTRUCTION ON OR ABOUT THE PROPERTY. THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR PRESERVING ALL ESTABLISHED SURVEY CONTROL POINTS. IF THE CONTRACTOR OR ANY OF HIS SUB-CONTRACTORS MOVE OR DESTROY ANY SURVEY CONTROL POINTS, THE COST INCURRED BY THE LAND OWNER OR MOTOROLA TO RE-ESTABLISH THEM WILL BE BORNE BY THE CONTRACTOR.

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NO. DATE REVISIONS

BY CHK APP'D

MI

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GENERAL NOTES

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1.10. PERMITS

THE CONTRACTOR SHALL GIVE ALL NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY, MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS, AND LOCAL AND STATE JURISDICTIONAL CODES BEARING ON THE PERFORMANCE OF THE WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS AND INSPECTIONS WHICH MAY BE REQUIRED FOR THE WORK BY THE STATE, COUNTY OR LOCAL GOVERNMENT AUTHORITY. THE WORK PERFORMED ON THE PROJECT AND THE MATERIALS INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS, AND ORDINANCES. THE CONTRACTOR SHALL MEET ALL OF THE REGULATORY REQUIREMENTS OF THE JURISDICTION GOVERNING CONSTRUCTION.

1.11. SITE INSPECTION

THE CONTRACTOR SHALL HAVE THE RESPONSIBILITY FOR ARRANGING WITH MOTOROLA FOR AN INSPECTION PRIOR TO COVERING UP ALL WORK THAT WILL BE COVERED IN FINISHED CONDITION. IT IS THE SITE GENERAL CONTRACTOR'S RESPONSIBILITY TO MANAGE THE SEQUENCE OF WORK AND REQUEST THE INSPECTIONS IN A TIMELY MANNER. THE SITE GENERAL CONTRACTOR SHALL NOT REQUEST AN INSPECTION UNLESS ALL OF THE RELATED WORK HAS BEEN COMPLETED. WORK SHALL. NOT PROCEED TO THE NEXT STEP UNTIL THE PREVIOUS STEP HAS BEEN INSPECTED AND APPROVED BY THE LOCAL INSPECTORS AND THE MOTOROLA REPRESENTATIVE. THE PRESENCE OF THE OWNER OR MOTOROLA REPRESENTATIVE ON THE JOB SITE IN NO WAY RELIEVES THE SITE GENERAL CONTRACTOR OF THE ASSOCIATED RESPONSIBILITIES OF THE JOB. ANY WORK WHICH DOES NOT MEET THE REQUIREMENTS OF THE CONTRACT DOCUMENTS WILL BE CORRECTED OR REMOVED SOLELY AT THE SITE GENERAL CONTRACTOR'S EXPENSE.

THE FOLLOWING INFORMATION IS INCLUDED AS A GUIDE TO THE CONTRACTOR TO ASSIST IN DETERMINING THE TYPE AND FREQUENCY OF INSPECTIONS. THE LISTED INSPECTIONS REPRESENT THOSE REQUIRED FOR SMALL OR SIMPLE PROJECTS. LARGE OR COMPLEX PROJECTS MAY REQUIRE ADDITIONAL INSPECTIONS DEPENDING ON THE SEQUENCE OF WORK.

•FOUNDATION EXCAVATIONS AND REBAR: TO BE MADE AFTER TRENCHES ARE EXCAVATED AND FORMS ERECTED, REINFORCEMENT PLACED, COMPACTION TESTED, SOIL TREATED, VAPOR BARRIER PLACED, AND ESSENTIALLY READY FOR CONCRETE PLACEMENT.

•GROUNDING: TO BE MADE AFTER THE BELOW GROUND CADWELD CONNECTIONS HAVE BEEN COMPLETED, PRIOR TO COVERING UP THE TRENCHES.

•ELECTRICAL WORK WITHIN WALLS: TO BE MADE AFTER THE ROOF, FRAMING, FIRE BLOCKING AND BRACING IS IN PLACE PRIOR TO THE INSTALLATION OF INSULATION OR WALL/CEILING MEMBRANES.

AS A GENERAL RULE. THE CONTRACTOR SHALL PROVIDE ADVANCE NOTICE TO MOTOROLA FOR INSPECTION OF ALL WORK PRIOR TO CONCEALMENT. THE CONTRACTOR HAS RESPONSIBILITIES RELATIVE TO ALL TYPES OF INSPECTIONS AND IS RESPONSIBLE FOR CONTACTING ALL OF THE INSPECTING ENTITIES TO DETERMINE HIS RESPONSIBILITIES. ALL OF THESE INSPECTING ENTITIES HAVE UNIQUE AND SEPARATE RESPONSIBILITIES. ONE INSPECTION FROM AN ENTITY WILL NOT SUBSTITUTE FOR AN INSPECTION FROM ANOTHER ENTITY.

1.12. SAFETY

THE CONTRACTOR, HIS EMPLOYEES, ANY SUB-CONTRACTORS, VENDORS, THEIR RESPECTIVE EMPLOYEES AND CONTRACTOR'S VISITORS SHALL COMPLY WITH ALL SAFETY STANDARDS, ACCIDENT PREVENTION REGULATIONS AND ENVIRONMENTAL REGULATIONS PROMULGATED BY FEDERAL, STATE OR LOCAL. AUTHORITIES HAVING JURISDICTION AND SHALL AT ALL TIMES CONDUCT ALL OPERATIONS UNDER THE CONTRACT IN A MANNER TO AVOID THE RISK OF BODILY HARM TO ANY PERSONS AND THE RISK OF DAMAGE TO ANY PROPERTY, EQUIPMENT OR MATERIAL SUCH PARTIES SHALL ALSO COMPLY WITH ANY SAFETY PROGRAMS AND/OR RULES PROMULGATED BY OWNER AND/OR MOTOROLA.

1.13. ELECTRO MAGNETIC EMISSIONS

THE CONTRACTOR SHALL ACKNOWLEDGE ALL OR PORTIONS OF THE WORK MAY INVOLVE POSSIBLE EXPOSURE OF CONTRACTOR, SUB-CONTRACTORS, AND THEIR RESPECTIVE EMPLOYEES, AGENTS, INVITEES, LICENSEES AND OTHER VISITORS TO THE JOBSITE AND/OR MOTOROLA PREMISES TO ELECTRO-MAGNETIC ENERGY ("EME") WHILE PERFORMING WORK UNDER THIS CONTRACT, ESPECIALLY IF WORK IS PERFORMED ON EXISTING ANTENNA TOWERS WHERE ANTENNAS ARE LOCATED. THE CONTRACTOR REPRESENTS THAT CONTRACTOR, SUBCONTRACTORS, AND ALL OF THEIR RESPECTIVE EMPLOYEES, AGENTS, INVITEES, LICENSEES, AND OTHER AUTHORIZED REPRESENTATIVES WHO ARE PERFORMING SERVICES UNDER THIS AGREEMENT WILL COMPLY WITH ALL ANSI AND ANY OTHER APPLICABLE EME STANDARDS, RULES OR REGULATIONS, INCLUDING, BUT NOT LIMITED TO THOSE RULES OR REGULATIONS IMPOSED OR SUGGESTED BY MOTOROLA, IF ANY.

THE CONTRACTOR SHALL ADHERE TO ALL OSHA RULES, REGULATIONS AND ADOPTED POLICIES. ALL CONTRACTOR PERSONNEL SHALL HAVE UNDERGONE ELECTROMAGNETIC ENERGY (EME) TRAINING FOR PERSONNEL WORKING IN THE VICINITY OF ACTIVE ANTENNAS. AS SUCH IT IS RECOMMENDED THAT RF MONITORS BE USED BY THE TOWER PERSONNEL TO MONITOR EXPOSURE LEVELS. IF EME LEVELS AT THE SITE EXCEED THE MAXIMUM PERMISSIBLE EXPOSURE LIMITS, THE CONTRACTOR SHALL COORDINATE WITH THE INDIVIDUALS RESPONSIBLE FOR USE OF THE TRANSMITTER TO MAKE SURE THAT THE EQUIPMENT IS DEACTIVATED BEFORE WORK CAN BE RESUMED, WITHOUT CAUSING A SERIOUS DISRUPTION OF THE SERVICE.

1.14. SITE CLEANUP

THE CONTRACTOR SHALL KEEP THE GENERAL WORK AREA CLEAN AND HAZARD FREE AT ALL TIMES DURING CONSTRUCTION AND DISPOSE OF ALL DIRT, DEBRIS, VEGETATION, AND RUBBISH, AND REMOVE EQUIPMENT NOT SPECIFIED AS REMAINING ON THE PROPERTY. WHENEVER THE WORK-SITE IS LEFT UNATTENDED, THE CONTRACTOR SHALL BLOCK THE OPENING WITH WARNING TAPE TO DISCOURAGE TRESPASSING. THE PREMISES SHALL BE LEFT IN CLEAN CONDITION AND FREE FROM PAINT SPOTS, DUST, OR SMUDGES OF ANY NATURE AT THE CONCLUSION OF SITE WORK.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR LANDSCAPE GRADING AND SEEDING OF THE DISTURBED SOIL THE CONTRACTOR SHALL USE LOCAL GRASS SEED TO STABILIZE SOIL AND SHALL COVER DISTURBED AREAS WITH HAY MULCH TO REDUCE RUNOFF OF SEDIMENT TO DOWNSTREAM AREAS. THE CONTRACTOR SHALL RESTORE THE SITE TO ITS ORIGINAL CONDITION. ALL SLOPES AND DISTURBED AREAS NOT RECEIVING AGGREGATE SURFACING ARE TO BE PREPARED AND BROADCAST SEEDDED AND FERTILIZED FOR EROSION PROTECTION. SEEDING FOR AREAS DISTURBED SHALL BE ESTABLISHED SEASONALLY AS REQUIRED BY LOCAL CODES.

THE CONTRACTOR SHALL EXERCISE ALL CARE TO AVOID DAMAGE OR INTERRUPTION OF EXISTING UNDERGROUND OR OVERHEAD ELECTRIC SERVICES, UNDERGROUND GROUNDING AND FUEL LINES, EQUIPMENT AND BUILDINGS ON THE SITE, PLUS OFF SITE SERVICES, BURIED OR OVERHEAD, SURROUNDING THE EXISTING OR EXPANDED COMPOUND. ANY PROPERTY DAMAGE CAUSED BY THE CONTRACTOR OR HIS OPERATIONS SHALL BE CORRECTED AND/OR RESTORED TO THE SATISFACTION OF THE PROPERTY OWNER(S) AND MOTOROLA AT NO ADDITIONAL COST TO THE PROPERTY OWNER OR MOTOROLA. BURNING WILL NOT BE PERMITTED.

1.15. FACILITY STARTUP & COMMISSIONING

THE CONTRACTOR AND/OR SUB-CONTRACTORS SHALL DEMONSTRATE TO MOTOROLA THAT ALL SYSTEMS AND SUB-SYSTEMS INSTALLED UNDER THIS CONTRACT, OPERATE PROPERLY PRIOR TO THE FINAL ACCEPTANCE INSPECTION AND PROVIDE THE OPERATIONS AND MAINTENANCE MANUALS AT THIS TIME.

1.16. SHOP DRAWINGS/AS-BUILT DRAWINGS

THE MODIFICATIONS TO THE DRAWINGS AFTER CONSTRUCTION START SHALL RECEIVE ENGINEERING AND MOTOROLA APPROVAL PRIOR TO ANY CHANGES BEING MADE. THE ENGINEER OF RECORD SHALL MAKE THE REQUIRED CHANGE AND WILL SUBMIT CHANGES TO MOTOROLA AND ANY JURISDICTION HAVING AUTHORITY.

THE CONTRACTOR SHALL KEEP UP-TO-DATE MARKED-UP PRINTS OF THE PROJECT DRAWINGS. UPON COMPLETION OF WORK AT THE SITE, THE CONTRACTOR SHALL REVIEW THE COMPLETED AS-BUILT DRAWINGS, AND ASCERTAIN THAT ALL DATA FURNISHED ON THE DRAWINGS IS ACCURATE AND TRULY REPRESENTS THE WORK IS ACTUALLY INSTALLED. MARKINGS INDICATING CHANGES TO THE DRAWINGS SHALL BE RED OR GREEN AND CLEARLY VISIBLE. TWO (2) SETS OF "AS-BUILT" DRAWINGS SHALL BE FURNISHED TO THE MOTOROLA REPRESENTATIVE WITHIN 5 DAYS OF THE COMPLETION OF THE PROJECT. THESE DRAWINGS SHALL ALSO SHOW THE FOLLOWING:

•MODIFICATIONS TO SITE LAYOUT.

•GROUNDING SYSTEM LAYOUT.

•UNDERGROUND FUEL LINE RUN.

•UNDERGROUND TELCO CABLE RUN.

•UNDERGROUND ELECTRICAL RUN.

WHERE THE CONTRACTOR IS RESPONSIBLE FOR SUPPLYING THE SITE EQUIPMENT SHELTER. ISOLATION TRANSFORMER. GENERATOR, ETC.) THAT REQUIRES PERIODIC MAINTENANCE, THE CONTRACTOR SHALL INCLUDE ALL OPERATION AND MAINTENANCE MANUALS AND ALL AS-BUILT DRAWINGS WHICH FULLY DESCRIBE THE ACTUAL INSTALLED EQUIPMENT.

1.17. TEST PROCEDURES AND RESULTS

CONTRACTOR WILL CONTRACT WITH A THIRD PARTY "INDEPENDENT" TESTING FIRM TO PERFORM & SUBMIT THE RESULTS OF ALL TESTS REQUIRED BY THE PROJECT SPECIFICATIONS AND DRAWINGS THAT FALL WITHIN THE SCOPE OF WORK. THESE RESULTS SHALL BE SUBMITTED TO THE DESIGNATED MOTOROLA REPRESENTATIVE. IN GENERAL, THE "INDEPENDENT" TESTING FIRM SHALL SUBMIT THE FOLLOWING TEST RESULTS:

•MIX DESIGN/CONCRETE COMPRESSION TEST FOR ALL CONCRETE WORK.

•TIME DOMAIN REFLECTOMETER (TDR) WITH PRECISION LOAD / SWEEP TEST FOR ANTENNA AND TRANSMISSION LINE INSTALLATION WORK.

•FUEL LINE LEAKAGE TEST FOR FUEL TANK AND PIPING INSTALLATION WORK.

•SLUMP TEST FOR CONCRETE WORK.

•GROUNDING RESISTANCE TEST FUR GROUNDING WORK.

•STRUCTURAL STEEL FABRICATION DRAWINGS.

•ANY OTHER TEST THAT MAY BE REQUIRED.

1.18. CONTRACT CLOSEOUT – IN ACCORDANCE WITH MOTOROLA’S SUBCONTRACT AGREEMENT TERMS AND CONDITIONS

THE MOTOROLA REPRESENTATIVE WILL PROVIDE A CERTIFICATE OF COMPLETION AND APPROVE FINAL PAYMENT WHEN ALL PUNCH-LIST ITEMS HAVE BEEN CORRECTED, RECORD DRAWINGS SUBMITTED, AND ALL SYSTEMS ARE ACCEPTABLE. THE CONTRACTOR MUST ALSO RECEIVE A CERTIFICATE OF COMPLETION FROM THE MUNICIPALITY. AFTER FINAL PAYMENT, CONTRACTOR WILL SIGN A RELEASE OF LIEN.

1.19. WARRANTY

ALL WORK PERFORMED BY THE CONTRACTOR IN COMPLETING THE SCOPE IDENTIFIED ON THE DRAWINGS SHALL BE GUARANTEED BY THE CONTRACTOR FOR A PERIOD OF ONE YEAR FROM THE DATE OF FINAL COMPLETION OF THE PROJECT. THIS GUARANTEE SHALL COVER ALL MATERIALS, EQUIPMENT OR WORKMANSHIP WHICH IN THE OPINION OF MOTOROLA IS RENDERED DEFECTIVE OR INFERIOR OR NOT IN ACCORDANCE WITH THE TERMS OF THE CONTRACT DURING THE GUARANTEE PERIOD. IF, WITHIN THE GUARANTEE PERIOD, REPAIRS OR CHANGES ARE REQUIRED TO CORRECT THE GUARANTEE WORK. THEN UPON RECEIPT OF NOTICE, THE CONTRACTOR SHALL PROMPTLY AND WITHOUT EXPENSE TO MOTOROLA OR THE OWNER, PROCEED TO:

•PLACE IN SATISFACTORY CONDITION ALL OF SUCH GUARANTEED WORK AND CORRECT ALL DEFECTS THEREIN.

•MAKE GOOD ALL DAMAGES TO THE STRUCTURE OR SITE OR EQUIPMENT OR CONTENTS THEREOF, WHICH, IN THE OPINION OF THE MOTOROLA, IS THE RESULT OF THE USE OF MATERIALS, EQUIPMENT, OR WORKMANSHIP WHICH ARE INFERIOR, DEFECTIVE, OR NOT IN ACCORDANCE WITH THE TERMS OF THE CONTRACT;

•MAKE GOOD ANY WORK, MATERIALS OR EQUIPMENT. AND ADJACENT STRUCTURES DISTURBED IN FULFILLING THE GUARANTEE.

1.20. RELATED DOCUMENTS

CONTRACTOR SHALL BECOME FAMILIAR WITH THE INFORMATION AND REQUIREMENTS CONTAINED IN THE FOLLOWING DOCUMENTS RELATED TO THE PROJECT:

A. TOWER AND TOWER FOUNDATION DRAWINGS BY THE MANUFACTURER.

B. R-56 STANDARDS AND GUIDELINES FOR COMMUNICATIONS SITES BY MOTOROLA.

C. ALL OTHER PERTINENT DOCUMENTS.

Abbreviations and Symbols

A/C	AIR CONDITIONING	N	NORTH
ADJ	ADJUSTABLE	N/A	NOT APPLICABLE
AFF	ABOVE FINISH FLOOR	NIC	NOT IN CONTRACT
APPROX	APPROXIMATELY	NTS	NOT TO SCALE
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS		
AWG	AMERICAN WIRE GAUGE	O/C,O.C.	ON CENTER
		OD	OUTSIDE DIAMETER
		OPG	OPENING
		OPP	OPPOSITE
BLDG	BUILDING		
BLK	BLOCK		
BMR	BASE MOBILE RADIO	PLYWD	PLYWOOD
B/S	BUILDING STANDARD	PR	PAIR
		PROJ	PROJECT
		PROP	PROPERTY
		PT	PRESSURE TREATED
CLG	CEILING		
CLR	CLEAR		
CND,C	CONDUIT		
CONC	CONCRETE	REQ'D	REQUIRED
CONST	CONSTRUCTION	RM	ROOM
CONT	CONTINUOUS	RO	ROUGH OPENING
DBL	DOUBLE	S	SOUTH
DIA,Ø	DIAMETER	SHT	SHEET
DIAG	DIAGONAL	SIM	SIMILAR
DIM	DIMENSION	SPEC	SPECIFICATION
DN	DOWN	SQ	SQUARE
DTL,DETL	DETAIL	SS	STAINLESS STEEL
DWG	DRAWING	STL	STEEL
		STRUCT	STRUCTURAL
		SUSP	SUSPENDED
E	EAST	SV	SHEET VINYL
EA	EACH		
EL,ELEV	ELEVATION		
ELECT	ELECTRICAL	THRU	THROUGH
EQ	EQUAL	TNND	TINNED
EQUIP	EQUIPMENT	TOC	TOP OF CONCRETE
EW	EACH WAY	TOM	TOP OF MASONRY
EXIST	EXISTING	TYP	TYPICAL
EXT	EXTERIOR		
FIN	FINISH	UBC	UNIFORM BUILDING
FLUOR	FLUORESCENT		
FLR	FLOOR	UNO	UNLESS NOTED
FT	FOOT		OTHERWISE
GA	GAUGE	VERT	VERTICAL
GALV	GALVANIZE(D)	VIF	VERIFY IN FIELD
GC	GENERAL CONTRACTOR	VT	VINYL TILE
GRND	GROUND		
GWB	GYP SUM WALL BOARD	W	WEST
GYP BD	GYP SUM BOARD	W/	WITH
		WIN	WINDOW
		W/O	WITHOUT
		WP	WATERPROOF
HARD'WD	HARDWOOD		
HORIZ	HORIZONTAL		
HR	HOUR		
HT	HEIGHT		
HVAC	HEATING, VENTING & AIR CONDITIONING		
		∠	ANGLE
		&	AND
		CL	CENTER LINE
ID	INSIDE DIA.	P	PROPERTY LINE
IN	INCH	@	AT
INFO	INFORMATION	#	NUMBER
INSUL.	INSULATION		
INT	INTERIOR		
LB(S)	POUND(S)		
MAX	MAXIMUM		
MECH	MECHANICAL		
MET,MTL	METAL		
MFR	MANUFACTURER		
MGR	MANAGER		
MIN	MINIMUM		
MISC	MISCELLANEOUS		

1

↕

1

T-1

REVISION

1

↔

1

T-1

KEY NOTE

100

100

ROOM NUMBER

22

22

KEYED NOTE

1

↕

1

T-1

DETAIL REFERENCE

1

↔

1

T-1

ELEVATION REFERENCE

1

↕

1

T-1

SECTION REFERENCE

STATE OF MARYLAND

GREGORY J. JUREK

PROFESSIONAL ENGINEER

03/14/2017

PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED AND PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 48984, EXPIRATION DATE 03/14/18

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GN-2

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GENERAL NOTES AND LEGEND

BRETTON WOODS GOLF COURSE
15700 RIVER RD.
GERMANTOWN, MD 20874

0

09-25-17

ZONING DRAWING

RNV

SAH

M

09-22-17

ZONING REVIEW SET

RNV

SAH

L

09-20-17

REVISED LANDSCAPING PLAN

SAH

SAH

K

09-19-17

REVISED LANDSCAPING PLAN

SAH

SAH

J

09-15-17

REMOVED WMATA EQUIPMENT

SAH

SAH

NO.

DATE

BY

CHK

APP'D

MISSION 1

COMMUNICATIONS

6355 Constitution Drive, Suite A

Fort Wayne, IN 46804

Pyramid

Network Services, LLC

MOTOROLA

SOLUTIONS

MONTGOMERY COUNTY

MARYLAND

GENERAL NOTES AND LEGEND

BRETTON WOODS GOLF COURSE
15700 RIVER RD.
GERMANTOWN, MD 20874

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- GENERAL NOTES:
1. PROPERTY OFFSETS ARE APPROXIMATE. FINAL LOCATION OF COMPOUND TO BE DEVELOPED FROM TOWER C.
 2. THE LOCATION, SIZE & TYPE OF MATERIAL OF EXISTING UTILITIES INDICATED ON THE PLANS IS NOT REPRESENTED AS BEING ACCURATE, SUFFICIENT OR COMPLETE. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE ACTUAL LOCATION OF ALL SUCH FACILITIES, INCLUDING THE SERVICE CONNECTIONS TO UNDERGROUND UTILITIES. PRIOR TO CONSTRUCTION THE CONTRACTOR SHALL NOTIFY THE UTILITY COMPANIES OF HIS OPERATIONAL PLANS & SHALL OBTAIN FROM THE RESPECTIVE UTILITY COMPANIES DETAILED INFORMATION & ASSISTANCE RELATIVE TO THE LOCATION OF THEIR FACILITIES & THE WORKING SCHEDULE OF THE COMPANIES FOR REMOVAL OR ADJUSTMENT WHERE REQUIRED. IN THE EVENT AN UNEXPECTED UTILITY INTERFERENCE IS ENCOUNTERED DURING CONSTRUCTION, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE UTILITY COMPANY OF JURISDICTION. THE ENGINEER SHALL ALSO BE IMMEDIATELY NOTIFIED. ANY SUCH MAINS & SERVICES SHALL BE RESORTED TO SERVICE AT ONCE & PAID FOR BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE CONTRACT.
 3. ALL PROPOSED CONSTRUCTION ACTIVITIES & MODIFICATIONS SHALL COMPLY WITH MOTOROLA R-56 STANDARDS, MOST CURRENT REVISION.

ANY DISCREPANCIES BETWEEN THIS DRAWING PACKAGE AND EXISTING FIELD CONDITIONS MUST BE REPORTED TO THE ENGINEER OF RECORD PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.

1 Site Location Plan

NORTH

50' 0 50' 100'

1 inch = 50 ft.

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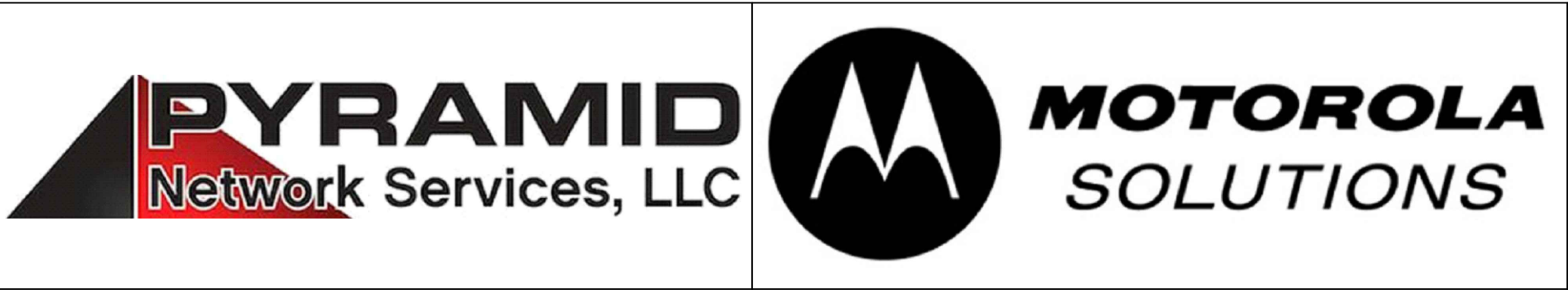


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O	09-25-17	ZONING DRAWING	RNV	SAH	
M	09-22-17	ZONING REVIEW SET	RNV	SAH	
L	09-20-17	REVISED LANDSCAPING PLAN	SAH	SAH	
K	09-19-17	REVISED LANDSCAPING PLAN	SAH	SAH	
J	09-15-17	REMOVED WMATA EQUIPMENT	SAH	SAH	
NO.	DATE	REVISIONS	BY	CHK	APP'D

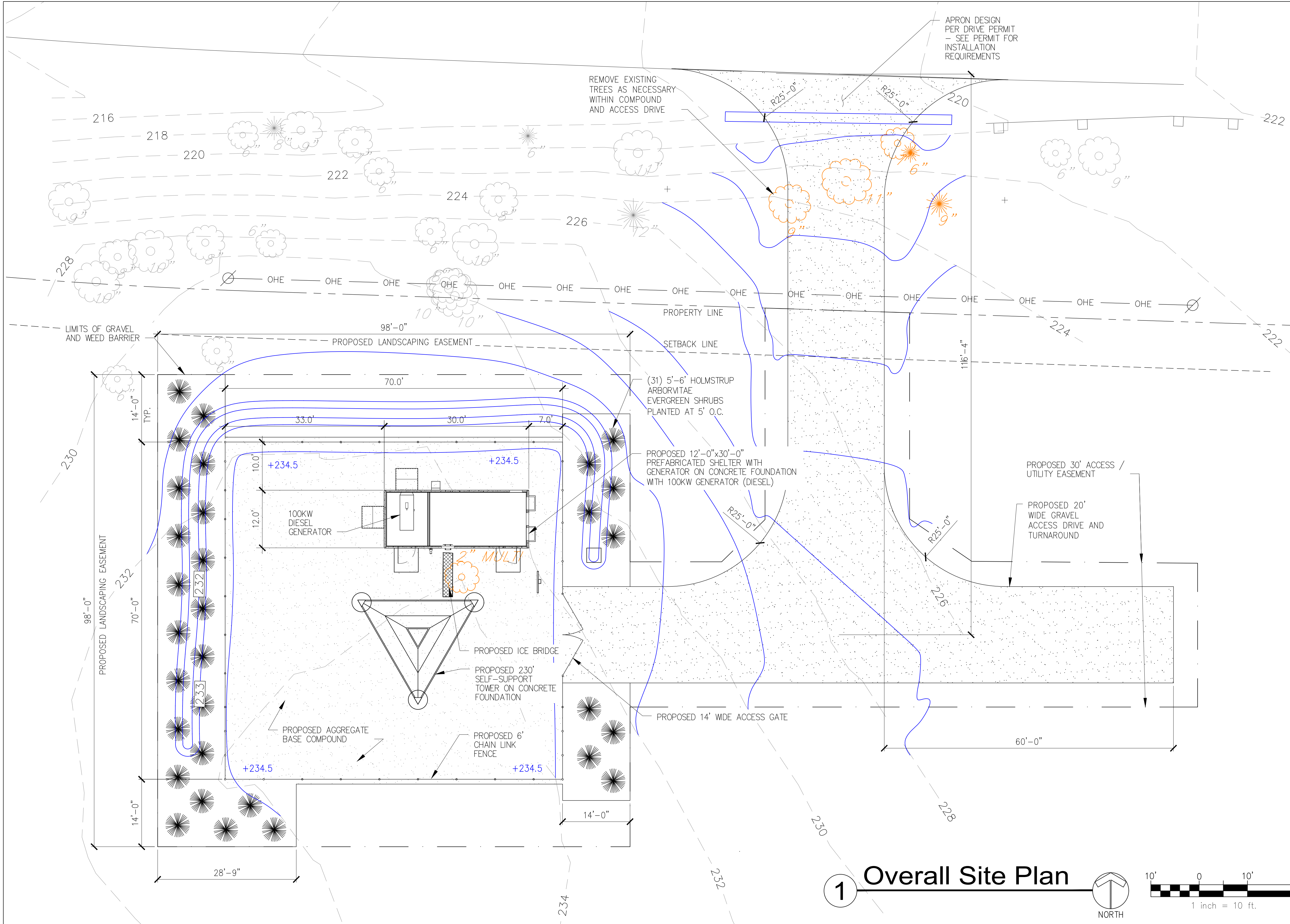


SITE LOCATION PLAN

BRETTON WOODS
GOLF COURSE
15700 RIVER RD.
GERMANTOWN, MD 20874

C-1

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24x36



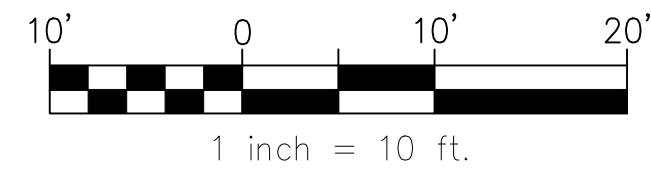
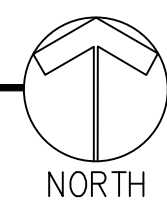
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ANY DISCREPANCIES BETWEEN THIS DRAWING PACKAGE AND EXISTING FIELD CONDITIONS MUST BE REPORTED TO THE ENGINEER OF RECORD PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.

Contour Legend:

- +XXX.X SPOT ELEVATION - SUBGRADE (FINISH GRADE OF SITE = 0.67' ABOVE SUBGRADE)
EXIST. CONTOUR - MINOR
EXIST. CONTOUR - MAJOR
PROPOSED CONTOUR

1 Overall Site Plan



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J	09-15-17	REMOVED WMATA EQUIPMENT	SAH	SAH	
NO.	DATE	REVISIONS	BY	CHK	APP'D



MOTOROLA
SOLUTIONS



OVERALL SITE PLAN

BRETTON WOODS
GOLF COURSE
15700 RIVER RD.
GERMANTOWN, MD 20874

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24x36

C-2



RESOURCES DATA TABLE					
AREA IN FOREST	AREA IN STREAM BUFFER	AREA IN WETLANDS	AREA IN 100-YEAR FLOODPLAIN	FORESTED AREA IN STREAM BUFFER	FORESTED AREA IN WETLANDS
16.9 AC	103.4 AC	8.2 AC	73.9 AC	10.6 AC	1.7 AC
					FORESTED AREA IN 100-YEAR FLOODPLAIN 5.4 AC

NATURAL RESOURCES INVENTORY / FOREST STAND DELINEATION NOTES:

- There are three trees on the property that are within 75% of the current County / State champion for the species.
- Existing conservation easements shown hereon are per available public records.
- The existing floodplain is shown per FEMA Floodmap Panel 24031C00050 for Montgomery County.
- The existing wetlands shown are per the National Wetland Inventory Maps for Montgomery County.
- Tree sizes were obtained by measuring diameter-at-breast-height with a diameter tape.
- The subject property is zoned RC.
- The subject property is located within WSSC grids 217NW16, Tax Map DR341 and 218NW16, Tax Map DR342.
- Soil series 6A, 16B, 18C, 18D, 19B, 20B, 20C, 21B, 21C, 21D, 22B, 47A, 54A, 65B, 116D, and 118E are present on entire property.
- Five-foot contour-interval topography from M-NCPPC.
- On-site tree locations from a field survey by: Potomac Valley Surveys 20010 Fisher Avenue, Suite F Poolesville, Maryland 20837 1-888-349-5090

NATURAL RESOURCES INVENTORY: NARRATIVE

The subject property located within the Great Seneca Creek Watershed (use I-P) and the Potomac River Direct Watershed (use I-P). The property consists of 280.3 acres of land. A total of 16.9 acres of forest exists on the property while the remainder as tree cover and maintained lawn with ornamental landscaping. There is an existing country club, a pool house, swimming pools, tennis courts, athletic fields, a golf course, miniature golf and many out building to sport the facility, and a single-family home on the property. There are many significant specimen trees located on and adjacent to the property as shown on the plan.

The following pertains to the entire property:

- no rare, threatened or endangered species or their habitats were observed or are known to occur on the property
- the site is located in the Seneca Historic District
- this site is not located within an SFA or PMA

The forest on this property was delineated using random-sample-plotting methodology and determined to be two distinct stand based upon forest associations. Skins, Chipmunks, Black Vultures, White-tail Deer, Song Birds, Wood Peckers, Ground Hogs, Gray Squirrels and signs of White-tail Deer were observed on the property. The following is a brief description of the stand based upon general observations made during a site visit on 05/31/2017, 06/01/2017, 06/02/2017, 06/06/2017-06/09/2017, and 06/14/2017-06/16/2017 by Josh Maise of Benning & Associates, Inc.

STAND (15.2 AC) - HIGH PRIORITY

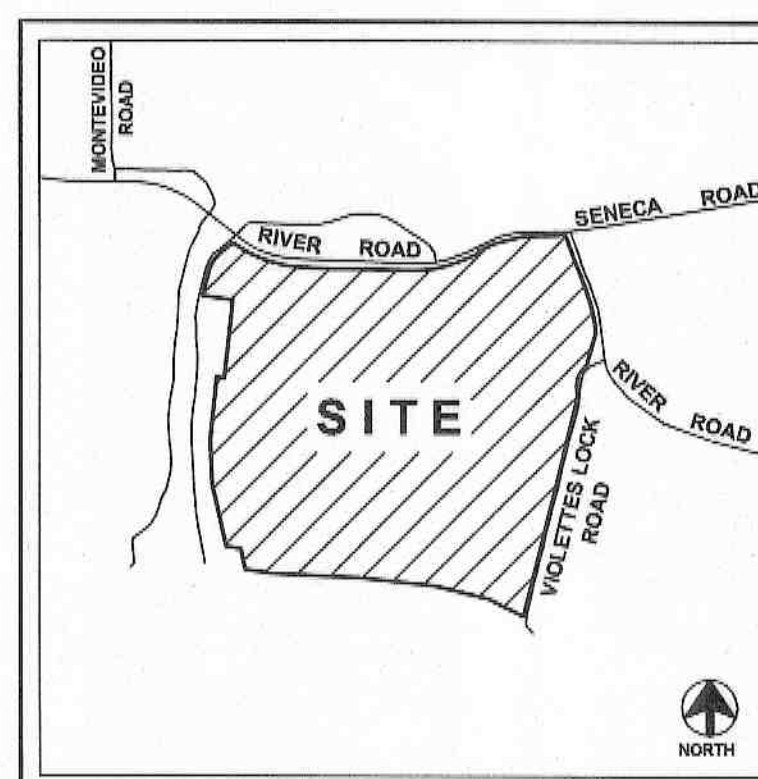
Stand Structure: This stand consists of three canopy layers. The forest is co-dominated by Tulip Poplar, Chestnut Oak, Sycamore and Northern Red Oak; Red Maple, American Elm, Hickory species, Black Cherry, Beech, Black Gum, White Ash, Tree of Heaven, Sugar Maple, White Oak and other native hardwoods are present in the tree canopy. The percentage of canopy closure for this stand is 70%. The shrub layer consists of Spicebush, Rubus species, Flowering Dogwood, Sassafras, Beech, Black Gum, White Ash and other native and exotic species. The percentage of understory growth is 30%. The herbaceous layer consists of Japanese Honeysuckle, Poison Ivy, Virginia Creeper, Fern species, Grass, Japanese Stiltgrass, and other native and exotic species. The percentage of herbaceous cover is 50%. On average there are about 2 dead standing trees per acre. The stand on average has about 5% exotic / invasive species.

Forest Structure: Good
Environmental Features: Trees greater than 24" dbh, slopes greater than 25%, slopes greater than 15% on highly erodible soils, 100 year floodplain, wetlands, wetlands of special state concern, streams
Evidence of Past Management: A free course existed in this area
Retention Potential: High
Regenerative / Transplant Potential: High
Additional Comments: This forest is high priority due to the presence of trees greater than 24" diameter-at-breast-height, slopes greater than 25%, slopes greater than 15% on highly erodible soils, 100 year floodplain, wetlands, wetlands of special state concern, streams and environmental buffers. The "Hilltop" area was hit very hard by the Derecho June 29, 2012 and many trees in this area lost their crowns. There are trees in other parts of this stand that also lost their crown.

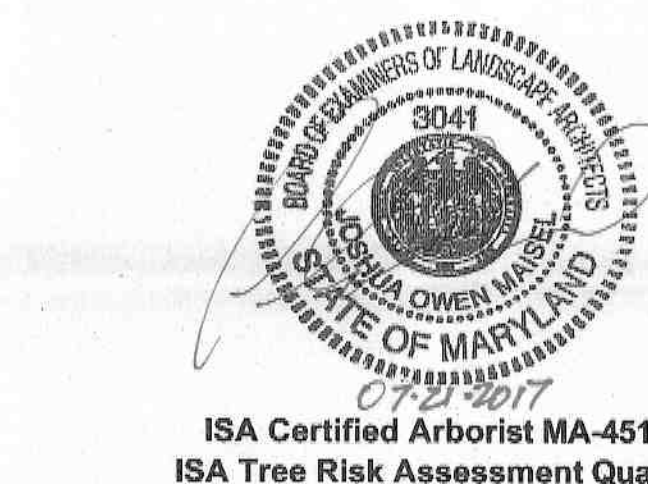
SOILS CHART									
SYMBOL	NAME	K-FACTOR	HYDRIC	SLOPES	SEEDLING MORTALITY	COMMENTS	PRIME AGRICULTURAL	SEVERELY ERODIBLE	SERPENTINITE
6A	Belle silt loam	0.43	Yes	0 - 3%	Severe	Very deep & poorly drained	No	No	No
16B	Brinklow-Blocktown channery silt loam	0.28	No	3 - 8%	Slight	Well drained, gently sloping	No	No	No
16C	Brinklow-Blocktown channery silt loam	0.28	No	8 - 15%	Slight	Well drained, strongly sloping	No	No	No
16D	Brinklow-Blocktown channery silt loam	0.28	No	15 - 25%	Slight	Well drained, strongly sloping	No	Yes	No
20B	Brentsville silt loam	0.28	No	3 - 8%	Slight	Moderately deep & well drained	Yes	No	No
20C	Brentsville silt loam	0.28	No	8 - 15%	Slight	Moderately deep & well drained	No	No	No
21B	Penn silt loam	0.32	No	3 - 8%	Slight	Moderately deep & well drained	Yes	No	No
21C	Penn silt loam	0.32	No	8 - 15%	Slight	Moderately deep & well drained	No	No	No
21D	Penn silt loam	0.32	No	15 - 25%	Slight	Moderately deep & well drained	No	Yes	No
22B	Readington silt loam	0.43	No	3 - 8%	Slight	Deep or very deep & moderately well drained	No	No	No
47A	Lindside silt loam	0.32	No	0 - 3%	Slight	Very deep & moderately well drained	Yes	No	No
54A	Hudson silt loam	0.43	Yes	0 - 3%	Slight	Very deep & poorly drained	No	No	No
65B	Wheaton silt loam	0.49	No	0 - 8%	Slight	Very deep & well drained	No	No	No
116D	Blocktown channery silt loam	0.24	No	15 - 25%	Severe	Shallow & well drained	No	No	No
118E	Blocktown channery silt loam	0.24	No	25 - 45%	Slight	Shallow & well drained	No	Yes	No

Prepared for:
Brettton Woods Recreation Center Inc.
c/o Ed Ronan General Manager
15700 River Road
Germantown, Maryland 20874
(240) 848-9120

VICINITY MAP
SCALE: 1" = 2,000'

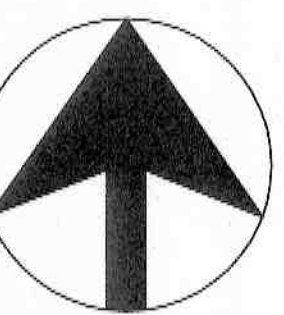


THE MARYLAND NATIONAL CAPITAL
PARK AND PLANNING COMMISSION
NWPSP PLAN
Approved
NWPSP NO. 420180220
Date Approved: 8/12/2017
Expiration Date: 8/12/2019
Signature: [Signature] Date: 8/12/2017



Sheet 1 of 5
Revisions

07/20/2017



date: 06/29/2017

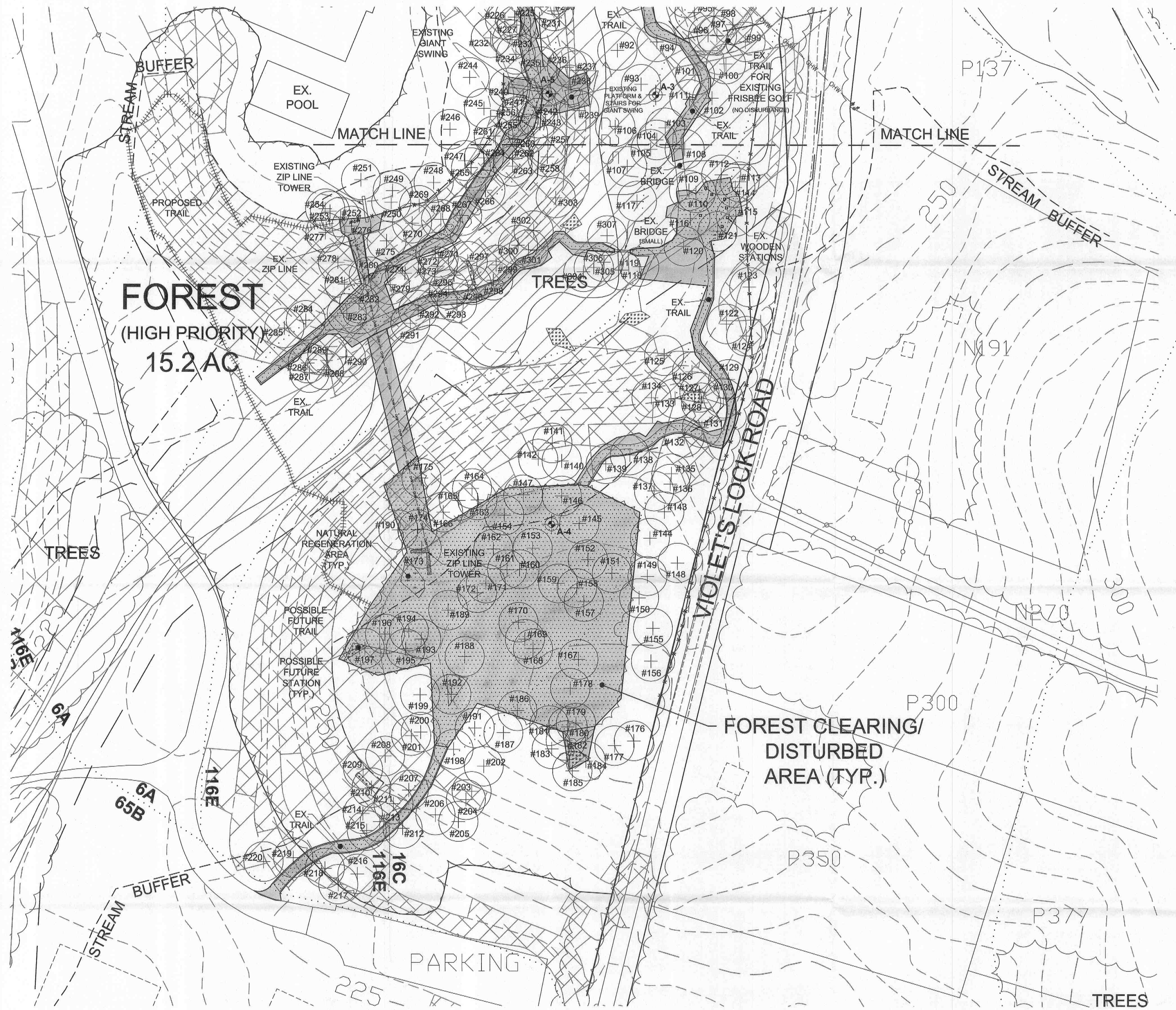
scale: 1" = 200'

Benning & Associates, Inc.
Land Planning Consultants
1403 S. State Street
Guthrie, MD 20877
(301) 946-0240

B&A

NATURAL RESOURCES INVENTORY / FOREST STAND DELINEATION
BRETTTON WOODS RECREATION CENTER
Montgomery County, Maryland

Received
M-NCPPC
JUL 24 2017
Montgomery County
Planning Department

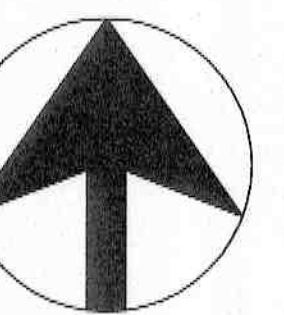


- LEGEND:**
- CANOPY COVERAGE
 - CART PATH
 - EXISTING BUILDING
 - EXISTING CATEGORY I CONSERVATION EASEMENT
 - EXISTING TRAIL
 - FOREST CLEARING / DISTURBANCE
 - FOREST SAMPLING POINT
 - MATCH LINE
 - NATURAL REGENERATION AREA
 - POSSIBLE FUTURE STATION
 - POSSIBLE FUTURE TRAIL
 - PROPERTY LINE
 - 12" TREE OR LARGER WITHIN 50' OF THE EXISTING TRAIL
 - SOILS SERIES DIVIDE
 - STANDLINE
 - STEEP SLOPES ≥ 25%
 - STEEP SLOPES ≥ 15% ON HIGHLY ERODIBLE SOILS
 - STREAM
 - STREAM BUFFER
 - WETLAND
 - 100 YEAR FLOODPLAIN



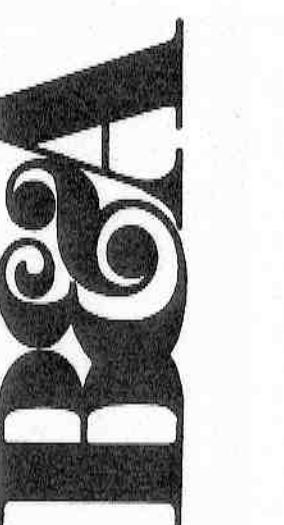
THE MARYLAND AND NATIONAL CAPITAL PARK AND PLANNING COMMISSION
NIPSPD PLAN
Approved
NIPSPD NO. 4720180020
Date Approved: 8/7/2017
Expiry Date: 8/7/2019
Signature: Stephen Beck Date: 8/7/2017

07/20/2017	



date: 06/29/2017
scale: 1" = 40'

Benning & Associates, Inc.
Lead Planning Consultants
8933 Shady Grove Court
Gallatin, MD 20877
(301) 946-0240



NATURAL RESOURCES INVENTORY / FOREST STAND DELINEATION
BRETTON WOODS RECREATION CENTER
Montgomery County, Maryland

Received
M-NCPPC
JUL 24 2017
Montgomery County
Planning Department

SIGNIFICANT TREE CHART					COMMENTS
TREE NUMBER	BOTANICAL NAME	COMMON NAME	SIZE (D.B.H.)	TREE CONDITION	
1*	<i>Pinus strobus</i>	White Pine	32.3"	Moderate	Response wood growth in butt of tree, possible sap sucker damage, poison ivy and Virginia Creeper climbing trunk, broken dead limbs with decay
2*	<i>Pinus strobus</i>	White Pine	28.4"	Moderate-Poor	Broken dead lower limbs, leader co-dominant, Virginia Creeper climbing trunk, canopy is limited up very high and thin canopy
3*	<i>Acer saccharum</i>	Sugar Maple	35.3"	Moderate	Co-dominant leaders, response wood growth at branch union, gall on trunk, broken dead limbs with decay, adventitious limbs
4	<i>Juglans nigra</i>	Black Walnut	15.5"	Moderate	Phototropic band in trunk, dead lower branches, die back, broken dead limbs in canopy
5	<i>Juglans nigra</i>	Black Walnut	12.5"	Moderate	Located at the top of steep slope, phototropic band in trunk, multi stem, co-dominant leaders, broken dead limbs with decay
6	<i>Platanus occidentalis</i>	Sycamore	20.0" & 20" (Estimate)	Moderate	Multi-stem, multiple vine species growing on trunk, unable to properly assess, adventitious limbs, dead limbs with decay
7	<i>Juglans nigra</i>	Black Walnut	14.0" (Estimate)	Moderate	Large old poison ivy vine
8	<i>Platanus occidentalis</i>	Sycamore	14.2"	Moderate	Old poison ivy vine, adjacent dead tree, grape vine in canopy, phototropic band in trunk
9	<i>Platanus occidentalis</i>	Sycamore	26.0" & 28.0" (Estimate)	Moderate	Multi-stem, lots of poison ivy on trunk, adventitious limbs, broken dead limbs with decay
10*	<i>Platanus occidentalis</i>	Sycamore	28.7" & 31.2"	Moderate	Multi-stem, response wood growth at branch union, broken dead limbs with decay
11	<i>Liriodendron tulipifera</i>	Tulip Poplar	14.4"	Good-Moderate	Grape vine climbing trunk, adventitious limbs, co-dominant leaders
12	<i>Liriodendron tulipifera</i>	Tulip Poplar	13.0"	Moderate	Fill in critical root zone and trunk, adventitious limbs, dead lower limbs, co-dominant leaders, carpenter ants on trunk, decay is somewhere on tree
13	<i>Liriodendron tulipifera</i>	Tulip Poplar	13.3"	Good-Moderate	Fill in critical root zone, dead lower limbs, grape vine in canopy
14	<i>Liriodendron tulipifera</i>	Tulip Poplar	14.2"	Moderate	Grapevine going around the trunk, adjacent black cherry tree, dead broken limbs with decay
15	<i>Ulmus americana</i>	American Elm	17.2"	Moderate	Adjacent to path, co-dominant leaders, adventitious limbs, grape vine in canopy, broken dead limbs with decay
16*	<i>Liriodendron tulipifera</i>	Tulip Poplar	34" (Estimate)	Moderate	Poison ivy, located at top of steep slope into creek, multiple poison ivy vines, broken dead limbs with decay
17	<i>Fraxinus americana</i>	White Ash	12.0"	Moderate-Poor	Co-dominant leaders, response wood growth at branch collar, large canker above branch union, multiple vines, co-dominant leaders, grape vine climbing tree
18*	<i>Platanus occidentalis</i>	Sycamore	34" (Estimate)	Good	Located on the stream bank, phototropic band in trunk, adventitious limbs, broken dead limbs
19	<i>Acer rubrum</i>	Red Maple	16" (Estimate)	Moderate	Located on bank of stream, poison ivy on trunk, adventitious limbs, co-dominant leaders
20	<i>Acer rubrum</i>	Red Maple	24.6"	Poor	Major butt rot, cavity holds water, adjacent to stream, galls on trunk, adventitious limbs, dead broken limbs with decay
21	<i>Acer rubrum</i>	Red Maple	23.9"	Poor	Major butt rot with galls on trunk, adventitious limbs, vine species climbing trunk
22	<i>Acer rubrum</i>	Red Maple	13.2"	Moderate-Poor	Adjacent to trail, 2.5' tall canker with decay, column of decay in tree, adventitious limbs
23	<i>Prunus serotina</i>	Black Cherry	13.0"	Moderate-Poor	Phototropic bands in trunk, broken attached limbs, dense bitter sweet on trunk and canopy, grape vines, co-dominant leaders, dead leader, broken dead limbs
24*	<i>Quercus alba</i>	White Oak	36.0" (Estimate)	Moderate-Poor	Unable to measure due to slope and poison ivy, nesting cavity in base of tree, major response wood growth in butt of tree, possible butt rot, phototropic band in trunk, co-dominant leaders, dead broken limbs with decay, die back
25*	<i>Liriodendron tulipifera</i>	Tulip Poplar	34.0" (Estimate)	Poor	Unable to measure due to slope and poison ivy, response wood growth in butt of tree, open vertical crack, trunk is hollow, decay, response wood growth in butt of tree, possible butt rot
26*	<i>Liriodendron tulipifera</i>	Tulip Poplar	38.4"	Good-Moderate	5% gridding roots visible, co-dominant leaders, die back, dead broken limbs with decay, small canker on root flare
27	<i>Quercus montana</i>	Chestnut Oak	25.5"	Moderate	Adjacent to trail, cut in critical root zone uphill side, fill in critical root zone on downhill side, adventitious limbs, dead broken limbs with decay, 5-10% visible gridding roots, co-dominant leaders, very thin canopy
28	<i>Liriodendron tulipifera</i>	Tulip Poplar	12.4"	Moderate	Trail cut above and below tree, butt rot with cavity with decay, adventitious limbs, phototropic band in upper trunk
29*	<i>Liriodendron tulipifera</i>	Tulip Poplar	35.5"	Moderate	Located on steep slope above stream, logs to hold fill range from 2-5' away, die back, dead broken limbs with decay, adventitious limbs, co-dominant leaders
30	<i>Liriodendron tulipifera</i>	Tulip Poplar	18.0"	Moderate	Located adjacent to trail in cut area, located on steep slope above stream, adventitious limbs, butt rot, leader, co-dominant leaders
31	<i>Liriodendron tulipifera</i>	Tulip Poplar	22.0" (Estimate)	Moderate	On steep slope above stream, fill has been placed in the critical root zone, adventitious limbs
32	<i>Quercus montana</i>	Chestnut Oak	39.8"	Dead	Multi-stem, dead leaders, sap rot visible on downhill side of tree with borer damage
33*	<i>Quercus montana</i>	Chestnut Oak	43.0"	Moderate	Multi-stem, response wood growth at branch union, adventitious limbs, dead broken limbs with decay, cut in trunk, down grade, possible butt rot, leader, galls on trunk
34*	<i>Quercus montana</i>	Chestnut Oak	37.0"	Poor	Lost leader, fungi growing in branch union, adventitious limbs, dead broken limbs with decay
35	<i>Quercus alba</i>	White Oak	28.1"	Moderate	Adjacent to cut for the trail, fill placed around trunk, adventitious limbs, co-dominant leaders, broken dead limbs with decay
36	<i>Liriodendron tulipifera</i>	Tulip Poplar	15.7"	Moderate-Poor	Critical root zone cut downgrade for trail, butt rot, galls forming on trunk, dead broken limbs with decay
37	<i>Liriodendron tulipifera</i>	Tulip Poplar	16.1"	Good	Adjacent to cut and fill for trail, fill on root collar, adventitious limbs
38	<i>Quercus montana</i>	Chestnut Oak	26.5"	Moderate-Poor	On steep slope, has butt rot, dead tree resting on trunk, adventitious limbs, dead lower limbs
39*	<i>Quercus montana</i>	Chestnut Oak	54.5"	Moderate-Poor	Co-dominant leaders, response wood growth at branch union, some decay in root collar, response wood growth uphill side, possible butt rot
40*	<i>Quercus montana</i>	Chestnut Oak	58.4"	Moderate-Poor	Adjacent to cut for trail, response wood growth in root collar, dead broken limbs with decay, small canker on root collar, adventitious limbs
41	<i>Acer rubrum</i>	Red Maple	12.2"	Good	Adjacent to cut next to trail, possible fill over critical root zone, phototropic band in trunk, die back
42*	<i>Quercus montana</i>	Chestnut Oak	34.0" & 35.2"	Moderate-Poor	Multi-Stem, Response wood growth at branch union, adventitious limbs, broken dead limbs with decay, large cavity on leader with decay
43	<i>Liriodendron tulipifera</i>	Tulip Poplar	20.7" & 20.4"	Moderate	Multi-stem, response wood growth from branch union to root collar, adventitious limbs, co-dominant leaders, broken dead limbs with decay
44	<i>Prunus serotina</i>	Black Cherry	15.5"	Poor	Lost leader, adventitious limbs
45	<i>Quercus montana</i>	Chestnut Oak	20.7"	Moderate	Butt rot, lower dead limbs with decay, thin canopy
46	<i>Quercus montana</i>	Chestnut Oak		Moderate	Possible butt rot, adventitious limbs, gall on trunk, co-dominant leaders, broken dead limbs, no disturbance from trail to wood line
47*	<i>Quercus coccinea</i>	Scarlet Oak	32.0"	Moderate	Possible butt rot, massive gall at about 10' up trunk, adventitious limbs, co-dominant leader, broken dead limbs with decay
48	<i>Liriodendron tulipifera</i>	Tulip Poplar	16.5"	Poor	Adventitious limbs, cavity about 20' up trunk, response wood growth
49	<i>Liriodendron tulipifera</i>	Tulip Poplar	21.1"	Poor	Broken dead limbs with decay, poor canopy arch, Virginia Creeper climbing trunk, butt rot with ants, no disturbance from trail in this area
50	<i>Liriodendron tulipifera</i>	Tulip Poplar	21.5"	Poor	Adventitious limbs, poor canopy, broken dead limbs with decay
51	<i>Nyssa sylvatica</i>	Black Gum	15.0"	Poor	Possible butt rot, vertical crack with borer damage and decay, adventitious limbs
52	<i>Nyssa sylvatica</i>	Black Gum	12.6"	Poor	Phototropic band in trunk, adventitious limbs, poor canopy
53*	<i>Quercus montana</i>	Chestnut Oak	42.5"	Moderate-Poor	No visible disturbance from trail in this area, adjacent to trail, poison ivy and Virginia Creeper starting to climb tree, possible butt rot, dead broken limbs with decay in canopy, adventitious limbs, co-dominant leaders, die back
54	<i>Quercus montana</i>	Chestnut Oak	19.8" & 19.7"	Moderate	Multi-stem, Virginia Creeper climbing leader, response wood growth at branch union, broken dead limbs with decay, adventitious limbs, co-dominant leaders
55	<i>Quercus alba</i>	White Oak	28.0"	Moderate-Poor	Two big Virginia Creeper vines on trunk to canopy, new Virginia Creeper and poison ivy climbing trunk, adventitious limbs, co-dominant leaders, dead broken limbs with decay in canopy, poor canopy, no disturbance from trail in this area
56*	<i>Quercus montana</i>	Chestnut Oak	39.0"	Moderate-Poor	Large canker from root collar to about 3.5', decay and borer damage, possible vertical crack from canker to branch union, included wood at branch union, visible cavity with honey bees, broken dead limbs with decay
57	<i>Acer rubrum</i>	Red Maple	26.5"	Poor	Co-dominant leaders, larger lead almost dead, visible canker with decay and borer damage, small leader adventitious limbs, poison ivy starting to climb tree
58	<i>Quercus alba</i>	White Oak	-	Dead	Multi-stem
59	<i>Quercus alba</i>	White Oak	24.4"	Moderate	Bittersweet and Virginia Creeper starting to climb trunk, downed log on butt of tree, adventitious limbs, no disturbance from trail in this area
60*	<i>Liriodendron tulipifera</i>	Tulip Poplar	52.8"	Almost Dead	Multi-stem, one leader is completely dead, other only lower third appears to be alive, disturbance from trail in this area
61	<i>Liriodendron tulipifera</i>	Tulip Poplar	15.1"	Moderate	Adjacent to path, no disturbance from path in this area, poison ivy and Japanese honeysuckle starting to climb tree, dead, broken limbs with decay, adventitious limbs
62	<i>Liriodendron tulipifera</i>	Tulip Poplar	15.9"	Moderate	Bittersweet, poison ivy and Japanese honeysuckle starting to climb trunk, no disturbance from trail, adventitious limbs, co-dominant leaders
63	<i>Quercus coccinea</i>	Scarlet Oak	24.5"	Moderate-Poor	Phototropic bands in trunk, adventitious limbs, small canopy, two large cankers on upper trunk with decay
64	<i>Quercus alba</i>	White Oak	26.0"	Moderate	Poison ivy climbing trunk, adventitious limbs, broken dead limbs with decay, co-dominant leaders
65*	<i>Quercus coccinea</i>	Scarlet Oak	30.0" (Estimate)	Poor	Large poison ivy vine, phototropic band, adventitious limbs, poison ivy in canopy and grape vine, broken dead limbs with decay, poor canopy
66	<i>Acer rubrum</i>	Red Maple	13.0"	Poor	Lost multi-stem, butt rot, decay and cavity in butt, adventitious limbs, black spots on trunk, galls on trunk, dead leader
67*	<i>Quercus alba</i>	White Oak	32.5"	Moderate-Poor	Multi-stem, very little signs of earthwork in critical root zone, response wood growth from branch union down, adventitious limbs, broken dead limbs with decay, co-dominant leaders
68	<i>Liriodendron tulipifera</i>	Tulip Poplar	20.2" & 26.2"	Moderate	Multi-stem, large poison ivy vine on big leader, cable from bridge around trunk, adjacent to newly constructed bridge, phototropic band in leader, broken dead limbs with decay, adventitious limbs
69	<i>Liriodendron tulipifera</i>	Tulip Poplar	24.4"	Moderate	Located adjacent to new bridge and stream, broken dead limbs with decay, adventitious limbs, co-dominant leaders
70	<i>Nyssa sylvatica</i>	Black Gum	14.3"	Moderate	Adventitious limbs, unable to properly assess due to forest canopy

SIGNIFICANT TREE CHART					COMMENTS
TREE NUMBER	BOTANICAL NAME	COMMON NAME	SIZE (D.B.H.)	TREE CONDITION	
71	<i>Fagus grandifolia</i>	American Beech	17.5"	Good	Adventitious limbs, co-dominant leaders
72	<i>Nyssa sylvatica</i>	Black Gum	14.0"	Moderate	Lost limbs, co-dominant leaders
73	<i>Quercus coccinea</i>	Scarlet Oak	28.8"	Moderate-Poor	Massive canker uphill side, wound filled to compartmentalize, decay, borer damage and response wood growth, adventitious limbs, broken dead limbs with decay
74*	<i>Quercus montana</i>	Chestnut Oak	34.0"	Moderate	Adjacent to fence minimal earthwork in the area, co-dominant leaders, response wood growth at branch union, gall on lower trunk, Virginia Creeper is climbing the tree, broken dead limbs with decay
75	<i>Quercus alba</i>	White Oak	16.0"	Moderate	Adventitious limbs, phototropic bands in trunk, broken dead limbs with decay
76	<i>Fagus grandifolia</i>	American Beech	13.4"	Good	Adventitious limbs, exposed roots, minimal earth work in critical root zone
77	<i>Quercus alba</i>	White Oak	21.6"	Poor	Adventitious limbs, dead broken limbs with decay, co-dominant leaders, lost leader, thin canopy
78	<i>Juglans nigra</i>	Black Walnut	22.5"	Moderate	Located on steep slope, large exposed root connect to bank and have helped to form a dam, canker on butt of about 12', need to compartmentalize, second one several feet higher, broken dead limbs with decay
79	<i>Quercus coccinea</i>	Scarlet Oak	22.8"	Moderate	Up grade from minimal trail cut, broken dead limb with decay, die-back, thin canopy
80	<i>Fagus grandifolia</i>	American Beech	22.5"	Moderate	On steep slope above cut from trail, broken attached dead limb, co-dominant leaders, adventitious limbs, galls on trunk
81	<i>Quercus rubra</i>	Northern Red Oak	23.3"	Moderate-Poor	A few feet upgrade from cut from trail, possible butt rot, sign installed in front of tree, dead broken limbs in canopy, thin canopy, die-back, co-dominant leaders
82	<i>Quercus rubra</i>	Northern Red Oak	27.9"	Moderate-Poor	Growing adjacent to Two "Y" suits are growing together, phototropic bands in trunk, dead broken limbs with decay, adventitious limbs
83	<i>Quercus alba</i>	White Oak	17.2"	Moderate-Poor	Phototropic bands in trunk, adventitious limbs, uphill from trail cut
84	<i>Quercus alba</i>	White Oak	17.8"	Moderate	Uphill front cut, phototropic bands in trunk, broken dead limbs with decay, die-back
85	<i>Quercus alba</i>	White Oak	16.9"	Moderate	Phototropic bands in trunk, possible butt rot, adventitious limbs, broken dead limbs with decay
86	<i>Quercus montana</i>	Chestnut Oak	23.4" & 19.2"	Moderate-Poor	Multi-stem, possible butt rot, adventitious limbs, decay in branch union, gall on trunk
87*	<i>Quercus alba</i>	White Oak	38.3"	Moderate-Poor	Co-dominant leaders, response wood growth below branch union, adjacent to stream, minimal earthwork in critical root zone, dead broken limbs with decay, adventitious limbs
88	<i>Quercus alba</i>	White Oak	20.9"	Moderate-Poor	Uphill from trail, galls on trunk, phototropic band in trunk, adventitious limbs, co-dominant leaders, broken dead limbs with decay, minor cut from trail in critical root zone
89	<i>Quercus montana</i>	Chestnut Oak	22.0"	Poor	Almost to top of hill, phototropic band in trunk, adventitious limbs, broken dead limbs with decay, co-dominant leaders
90	<i>Quercus montana</i>	Chestnut Oak	---	Dead	Dead standing
91*	<i>Quercus alba</i>	White Oak	31.0"	Moderate	Adjacent to trail and stream, minor fill in critical root zone, galls on trunk, co-dominant leaders, die-back
92*	<i>Fagus grandifolia</i>	American Beech	15.3"	Moderate	On steep stream bank, adventitious limbs, broken dead limbs with decay, co-dominant leaders
93*	<i>Quercus rubra</i>	Northern Red Oak	33.2"	Moderate-Poor	With poison ivy climbing trunk, in canopy, broken dead limbs with decay, possible butt rot
94*	<i>Liriodendron tulipifera</i>	Tulip Poplar	35.2"	Moderate	Adjacent to trail, cut and fill in critical root zone, co-dominant leaders, broken dead limbs with decay
95	<i>Quercus montana</i>	Chestnut Oak	18.8" & 10.9"	Moderate	Multi-stem, response wood growth at branch union, adventitious limbs, broken dead limbs with decay, uphill from trail cut, galls on trunk, possible vertical crack at branch union
96	<i>Quercus montana</i>	Chestnut Oak	15.3"	Moderate	Multi-stem butt rot leader, decay and borer damage, adventitious limbs
97	<i>Quercus montana</i>	Chestnut Oak	15.9"	Moderate-Poor	Butt rot, phototropic bands in trunk, adventitious limbs, co-dominant leaders, broken dead limbs with decay
98	<i>Quercus montana</i>	Chestnut Oak	16.9" & 15.5"	Moderate	Multi-stem, butt rot, adventitious limbs, broken dead limbs with decay
99	<i>Quercus montana</i>	Chestnut Oak	27.9" & 10.0"	Moderate	Multi-stem, located on a slope, adventitious limbs, no impact from trail, broken dead limbs
100	<i>Quercus montana</i>	Chestnut Oak	26.0"	Moderate-Poor	Uphill from cut for trail, adventitious limbs, broken dead limbs with decay, co-dominant leaders, with butt rot, cut from trail in critical root zone
101	<i>Quercus alba</i>	White Oak	26.9"	Moderate	Adjacent to trail, cut and fill within critical root zone, adventitious limbs, co-dominant leaders, dead leader with decay
102	<i>Nyssa sylvatica</i>	Black Gum	19.2"	Moderate-Poor	Poison ivy starting to climb trunk, adjacent to trail, minimal earthwork in critical root zone, adventitious limbs, dead limbs with decay, co-dominant leaders
103	<i>Quercus alba</i>	White Oak	15.1"	Dead	Dead
104	<i>Quercus rubra</i>	Northern Red Oak	28.9"	Moderate-Poor	Close to trail stream, new bridge, no signs of earthwork from trail just wood chips and bridge, possible butt rot, adventitious limbs, broken dead limbs with decay
105	<i>Acer rubrum</i>	Red Maple	22.8"	Poor	Massive column of decay visible from root collar to about 7' with decay and borer damage, butt rot, broken dead limbs with decay, co-dominant leaders
106	<i>Quercus bicolor</i>	Swamp White Oak	25.7"	Poor	Adjacent to stream, multiple galls on trunk, broken limbs with decay, adventitious limbs
107	<i>Liriodendron tulipifera</i>	Tulip Poplar	14.1"	Good	Dead limbs with decay, minor adventitious limbs, no trail earthwork in critical root zone
108	<i>Carya glabra</i>	Pignut Hickory	16.2"	Moderate	Struck by bridge above root collar, broken dead limbs with decay, die-back
109	<i>Quercus rubra</i>	Northern Red Oak	20.7"	Poor	Adjacent to bridge and stream, dead broken limbs with decay, co-dominant leaders
110	<i>Nyssa sylvatica</i>	Black Gum	12.7"	Poor	Lost leader, adventitious limbs, butt rot
111	---	---	20.0"	Cut stump	---
112	<i>Nyssa sylvatica</i>	Black Gum	19.3"	Moderate-Poor	Adjacent to stream, phototropic band in upper trunk, adventitious limbs, co-dominant leaders, die-back, minor dead limbs with decay, possible dead leader, logs piled in critical root zone, educational trail
113*	<i>Liriodendron tulipifera</i>	Tulip Poplar	37.8"	Moderate-Poor	Response wood growth in butt of tree, gall above root collar, adjacent to stream and fence, co-dominant leaders, response wood growth at branch union, included wood, Virginia Creeper died wood, broken dead limbs with decay, die-back, adventitious limbs, very limited earthwork
114*	<i>Quercus rubra</i>	Northern Red Oak	34.7"	Moderate-Poor	Phototropic lean, galls on trunk, surface areas on butt of tree, possible butt rot, co-dominant leaders, broken dead limbs with decay
115	<i>Ulmus americana</i>	American Elm	13.0"	Moderate-Poor	Galls in trunk, adventitious limbs, broken dead limbs with decay, co-dominant leaders, hazard broken limbs target stations, hazard can be mitigated, grape vine in canopy
116	<i>Fagus grandifolia</i>	American Beech	18.6"	Good	New wound to trunk, wood chips spread in critical root zone and logs, no signs of earthwork in this area, agency paint arrow on trunk, adventitious limbs, co-dominant leaders, broken dead limbs with decay
117	<i>Nyssa sylvatica</i>	Black Gum	30.0" (Estimate)	Moderate	Located on stream bank, exposed roots on bank, co-dominant leaders, broken dead limbs, adventitious limbs
118*	<i>Liriodendron tulipifera</i>	Tulip Poplar	30.7" (Estimate)	Poor	Located on stream bank, adventitious limbs, co-dominant leaders, die-back, dead limbs with decay, no earthwork
119*	<i>Liriodendron tulipifera</i>	Tulip Poplar	30.8"	Moderate	Phototropic band in trunk, adjacent to trail, just wood chips, no visible earthwork, adventitious limbs, die-back, broken dead limbs with decay, co-dominant leaders
120	<i>Liriodendron tulipifera</i>	Tulip Poplar	12.7"	Good	Adjacent to trail, appears only wood chips spread in this area, no earthwork
121	---	---	32.0" (Estimate)	Dead Stump	---
122*	<i>Quercus alba</i>	White Oak	33.8"	Moderate-Poor	Good root flare, close to road, adventitious limbs, co-dominant leaders, broken dead limbs with decay
123*	<i>Quercus montana</i>	Chestnut Oak	32.8"	Moderate	Barbed wire is gridding tree, outside fence, response wood growth in butt of tree, Virginia Creeper climbing trunk, Japanese honeysuckle starting to climb trunk, broken dead limbs with decay, die-back
124*	<i>Quercus rubra</i>	Northern Red Oak	34.2"	Moderate	Adjacent to fence, Virginia Creeper starting to climb trunk, adventitious limbs, dead broken limbs with decay
125	<i>Quercus rubra</i>	Northern Red Oak	36.0"	Stump	---
126	<i>Quercus rubra</i>	Northern Red Oak	29.5"	Moderate-Poor	Was multi-stem, leader was removed, cavity in trunk, sap rot on old leader, included wood at branch union, co-dominant leaders, broken dead limbs with decay, poor canopy, upgrade of trail
127	<i>Quercus montana</i>	Chestnut Oak	24.5"	Moderate-Poor	Phototropic lean in trunk, Virginia Creeper climbing trunk, adventitious limbs, broken dead limbs with decay, poor canopy, trail just wood chips
128	<i>Quercus alba</i>	White Oak	24.8"	Moderate-Poor	Response wood growth in butt of tree, co-dominant leaders, broken dead limbs with decay, die-back, just wood chips in critical root zone
129	<i>Ulmus americana</i>	American Elm	13.1"	Moderate	Adjacent to trail, minor cut and wood chips, Virginia Creeper is climbing trunk, adventitious limbs, dead broken limbs with decay, co-dominant leaders
130	<i>Juglans nigra</i>	Black Walnut	16.7"	Moderate	Adjacent to path, tree has been pruned, dead limbs with decay, minor earthwork for trail, wood chips on trail
131	<i>Quercus alba</i>	White Oak	28.2"	Moderate	Adjacent to path, trail area up grade was cut, wood chips on trail, adventitious limbs, broken dead limbs with decay, die-back
132	<i>Quercus alba</i>	White Oak	17.3"	Moderate	Butt rot, trail cut 4-6', exposed wound roots, wood chips for trail, adventitious limbs, broken dead limbs with decay, die-back
133	<i>Quercus alba</i>	White Oak	19.4"	Moderate-Poor	Down grade of trail, adventitious limbs, dead broken limbs, co-dominant leaders
134	<i>Quercus montana</i>	Chestnut Oak	26.7"	Moderate	Located on steep slope, multiple galls on trunk, adventitious limbs, broken dead limbs with decay
135*	<i>Quercus rubra</i>	Northern Red Oak	32.0" (Estimate)	Dead	---
136	<i>Quercus alba</i>	White Oak	14.0" (Estimate)	Dead	---
137	<i>Quercus montana</i>	Chestnut Oak	15.6"	Moderate-Poor	Virginia Creeper starting to up trunk, Japanese honeysuckle climbing tree, adventitious limbs, response wood growth in butt of tree, co-dominant leaders, thin canopy, die-back
138	<i>Quercus montana</i>	Chestnut Oak	23.8"	Moderate	10' west from trail downhill of tree, wood chip trail, response wood growth in butt of tree, adventitious limbs, broken dead limbs with decay, die-back, cant see canopy
139	<i>Quercus alba</i>	White Oak	27.4"	Moderate	Minor cut in critical root zone for trail, wood chips, adventitious limbs, broken dead limbs with borer damage and decay, butt leader

SIGNIFICANT TREE CHART						
TREE NUMBER	BOTANICAL NAME	COMMON NAME	SIZE (D.B.H.)	TREE CONDITION	COMMENTS	
140	---	---	12.2"	Dead	-----	
141	<i>Quercus montana</i>	Chestnut Oak	27.7"	Moderate-Poor	Multi-stem, on slope, trail upgrade, minimal disturbance, response wood growth at branch union, adventitious limbs, unable to assess due to adventitious limbs	
142	<i>Fagus grandifolia</i>	American American Beech	16.3"	Moderate-Poor	Exposed roots, tree climbing across in trunk, big phototropic bend in trunk, co-dominant leaders, broken dead limbs, die-back, in decline	
143	<i>Quercus alba</i>	White Oak	25.7"	Moderate	Broken limbs with decay, strike by wound on upper trunk, co-dominant leaders, adventitious limbs, possible butt rot and vertical crack, lodged branches	
144*	<i>Nyssa sylvatica</i>	Black Gum	32.7"	Poor	Lost leader, possible vertical crack, broken dead limbs, adventitious limbs	
145	---	---	---	---	---	
146	<i>Quercus alba</i>	White Oak	24.3"	Moderate	Butt rot, minimal or no earthrow, adventitious limbs, broken dead limbs with decay, co-dominant leaders	
147	<i>Acer rubrum</i>	Red Maple	12.7"	Poor	Multi-stem, minimal earthrow, minor tilt, layer of wood chips, exposed roots, adventitious limbs, possible lost leader, large wound on existing leader	
147	<i>Quercus montana</i>	Chestnut Oak	29.3"	Poor	Multi-stem, old not colored image on trunk, response wood growth at branch union, broken dead limbs with decay, several hangers, poor canopy, die-back	
148	<i>Quercus alba</i>	White Oak	26.6"	Moderate	Close to fence, galls on trunk, adventitious limbs, broken dead limbs with decay, co-dominant leaders	
149	<i>Quercus alba</i>	White Oak	28.0"	Moderate-Poor	Adjacent to trail, no visible earthrow, Just wood chips and a log in the critical root zone, possible butt limbrag on trunk, co-dominant leaders, broken dead limbs with decay, adventitious limbs, lost leader	
150	<i>Quercus alba</i>	White Oak	26.9"	Moderate	Adjacent to trail, no visible earthrow, Just wood chips and a log in the critical root zone, butt rot, adventitious limbs, broken dead limbs with decay, partially attached limbs, co-dominant leaders	
151	<i>Quercus alba</i>	White Oak	16.9"	Moderate	Possible butt rot, carpenter ants on trunk, adventitious limbs, broken dead limbs, co-dominant leaders	
152	<i>Quercus rubra</i>	Northern Red Oak	16.7"	Moderate-Poor	Butt rot, no signs of earthrow, wood chips in critical root zone, adventitious limbs, galls on trunk, phototropic bend in trunk, exposed roots	
153	<i>Quercus alba</i>	White Oak	22.3"	Poor	Major sap rot on trunk, lost leader, adventitious limbs, die-back	
154	<i>Quercus montana</i>	Chestnut Oak	23.1" & 21.3"	Poor	Downfall of trail, no earthrow just wood chips, leader removed, broken dead limbs, one leader almost dead, adventitious limbs, co-dominant leaders, die-back	
155	<i>Quercus alba</i>	White Oak	---	Moderate-Poor	Butt rot, close to fence, large limbs flank trunk, galls, dead broken limbs with decay, adventitious limbs, large trunk by canker about 22" x 1", tied to compartmentalization, border damage	
156	---	---	30.0" (Estimate)	Dead	Dead standing trunk	
157*	<i>Quercus alba</i>	White Oak	27.2"	Poor	No earthrow, but wood chips in critical root zone. Butt rot, adventitious limbs, lost leader, other leaders is dying, die-back, sap sucker damage	
158	<i>Quercus alba</i>	White Oak	23.4"	Poor	Adventitious limbs, phototropic limb, co-dominant leaders, broken dead limbs with decay	
159*	<i>Quercus alba</i>	White Oak	38.0"	Moderate	Wound on root collar, poison ivy starting to climb tree, adventitious limbs, co-dominant leaders, broken dead limbs with decay	
160	<i>Quercus alba</i>	White Oak	17.6"	Poor	Major butt rot, adventitious limbs, co-dominant leaders, broken dead limbs with decay	
161	<i>Quercus alba</i>	White Oak	14.8"	Moderate-Poor	Adventitious limbs, dead broken limbs with decay, canker above root collar, die-back, thin canopy	
162	<i>Quercus alba</i>	White Oak	22.2"	Moderate-Poor	Adjacent to trail, no signs of earthrow, wood chips on trail, major butt rot, wounds on limbs, galls on trunk, adventitious limbs, unbalanced canopy, co-dominant leaders, lost leader	
163*	<i>Quercus montana</i>	Chestnut Oak	30.3" & 18.0"	Poor	Multi-stem possible butt rot, response wood growth at branch union, adventitious limbs, co-dominant leaders, butt rot, no signs of earthrow, just wood chips for trail, no signs of grading	
164	<i>Quercus montana</i>	Chestnut Oak	18.7"	Moderate	Located on slope, adventitious limbs, phototropic limb, die-back, broken dead limbs with decay, adventitious limbs, co-dominant leaders, die-back	
165	<i>Quercus montana</i>	Chestnut Oak	22.1"	Moderate-Poor	Phototropic limb, adventitious limbs, die-back, co-dominant leaders, broken dead limbs with decay, wood chips and logs in critical root zone, down grade of trail	
166	<i>Quercus montana</i>	Chestnut Oak	21.9"	Moderate	10% visible grading roots, on slope adjacent to zip line, adventitious limbs, broken dead limbs with decay	
167*	<i>Quercus alba</i>	White Oak	31.6"	Moderate	No signs of earthrow in critical root zone, wood chips in critical root zone, galls on trunk, adventitious limbs, broken dead limbs with decay, co-dominant leaders, die-back	
168	<i>Quercus alba</i>	White Oak	27.2"	Moderate	No visible earthrow, wood chips spread in area, galls on trunk, adventitious limbs, broken dead limbs with decay, co-dominant leaders	
169	<i>Quercus alba</i>	White Oak	29.6"	Moderate	No signs of earthrow, wood chips in critical root zone, possible butt rot, adventitious limbs, broken dead limbs with decay, co-dominant leaders	
170	<i>Quercus alba</i>	White Oak	23.3"	Moderate	Minor wound to root collar, hanger, adventitious limbs, broken dead limbs with decay, co-dominant leaders	
171	<i>Nyssa sylvatica</i>	Black Gum	12.6"	Moderate-Poor	No visible signs of earthrow, wood chips in critical root zone, adventitious limbs, broken dead limbs with decay, phototropic limb in trunk, no signs of earthrow, just wood chips	
172	<i>Nyssa sylvatica</i>	Black Gum	12.7"	Moderate	Adventitious limbs, broken dead limbs with decay, phototropic limb in trunk, no signs of earthrow, just wood chips	
173	<i>Nyssa sylvatica</i>	Black Gum	12.4"	Moderate	Fill around trunk, new zip line tower installed adjacent to tree, adventitious limbs, co-dominant leaders, minor die-back	
174	<i>Quercus montana</i>	Chestnut Oak	17.0"	Moderate	Adventitious limbs, phototropic limb in trunk, co-dominant leaders, one leader is broken and decay	
175	<i>Quercus rubra</i>	Northern Red Oak	20.4"	Stump	Cut for zip line	
176	<i>Carya glabra</i>	Pignut Hickory	12.5"	Moderate	Adventitious limbs, close to fence, co-dominant leaders, broken dead limbs with decay	
177*	---	Northern Red Oak	30.7"	Moderate-Poor	Prosen ivy vines climbing trunk, galls on trunk, adventitious limbs, co-dominant leaders, response wood growth at branch union, die-back, broken dead limbs with decay, no earthrow or wood chips in critical root zone, response wood growth in bulk of tree	
178	<i>Quercus alba</i>	White Oak	24.0"	Moderate-Poor	Butt rot, no visible earthrow, wood chips in critical root zone, broken dead limbs with decay, co-dominant leaders, die-back	
179	<i>Quercus alba</i>	White Oak	21.5"	Moderate	Adventitious limbs, co-dominant leaders, dead leader, broken dead limbs with decay	
180	<i>Quercus alba</i>	White Oak	21.4"	Moderate	Adventitious limbs, die-back, dead limbs with decay, possible butt rot	
181	<i>Quercus rubra</i>	Northern Red Oak	14.1"	Moderate	Butt rot, underground obstruction possible, broken dead limb with decay, lodged limb, hanger	
182	<i>Quercus alba</i>	White Oak	25.1"	Moderate	No earthrow or wood chips, adventitious limbs, broken dead limbs with decay, co-dominant leaders	
183	<i>Quercus rubra</i>	Northern Red Oak	17.6"	Moderate	Broken dead limbs with decay, die-back, phototropic bend in upper trunk	
184	<i>Quercus alba</i>	White Oak	23.4"	Moderate	Broken dead limbs with decay, adventitious limbs, co-dominant leaders, die-back	
185	<i>Quercus alba</i>	White Oak	---	Moderate-Poor	Possible hut rot, galls on trunk, adventitious limbs, Broken dead limbs, with decay, co-dominant leaders	
186	<i>Quercus alba</i>	White Oak	29.8"	Good-Moderate	Broken dead limbs with decay, die-back, co-dominant leaders	
187	<i>Quercus alba</i>	White Oak	21.3"	Moderate	Adventitious limbs, phototropic bend in trunk, co-dominant leaders, die-back	
188	<i>Quercus alba</i>	White Oak	16.4"	Moderate	Butt rot, sap sucker damage, dead broken limbs with decay, co-dominant leaders, response wood growth in branch union	
189	<i>Quercus alba</i>	White Oak	18.7"	Moderate-Poor	Galls on trunk, adventitious limbs, phototropic limb, die-back, co-dominant leaders, broken limbs with rot	
190	<i>Quercus montana</i>	Chestnut Oak	29.9"	Moderate	Down grade of zip line tower, phototropic bend in trunk, adventitious limbs, broken dead limbs with decay, die-back, co-dominant leaders	
191	<i>Quercus alba</i>	White Oak	17.2"	Moderate	Adventitious limbs, phototropic limb, co-dominant leaders, broken dead limbs, die-back, no earthrow or wood chips	
192	<i>Quercus alba</i>	White Oak	23.0"	Moderate	Broken dead limbs with decay, adventitious limbs, possible butt rot	
193	<i>Nyssa sylvatica</i>	Black Gum	13.7"	Moderate	Wood chips and pole in critical root zone, adventitious limbs, phototropic bend in trunk, die-back, co-dominant leaders	
194	<i>Quercus montana</i>	Chestnut Oak	17.8"	Moderate	Co-dominant leaders, adventitious limbs, die-back, broken dead limbs with decay	
195	<i>Quercus alba</i>	White Oak	22.9"	Moderate	Butt rot, sap sucker damage, adventitious limbs, unbalanced canopy, die-back, wood chips in critical root zone	
196	<i>Quercus alba</i>	White Oak	16.4"	Moderate	Lost Leader, galls on trunk, adventitious limbs, die-back	
197	<i>Quercus rubra</i>	Northern Red Oak	22.0"	Stump	---	
198*	<i>Quercus montana</i>	Chestnut Oak	33.4"	Moderate	Multi-stem, response wood growth from root collar to branch union, adventitious limbs, broken dead limbs with decay, co-dominant leaders, die-back	
199*	<i>Quercus montana</i>	Chestnut Oak	31.4"	Moderate	Adjacent to trail, no wood chips or earthrow, co-dominant leaders, adventitious limbs, die-back, broken dead limbs with decay	
200	<i>Quercus alba</i>	White Oak	15.7"	Moderate	Major butt rot, broken dead limbs with decay, wound on upper trunk, co-dominant leaders, die-back, no earthrow or wood chips	
201	<i>Quercus alba</i>	White Oak	18.0"	Moderate	Butt rot, lost leader site is cavity with decay and bore damage, above 1' multiple wounds that are compartmentalized, adventitious limbs, co-dominant leaders	
202	<i>Quercus rubra</i>	Northern Red Oak	35.6"	Stump	-----	
203	<i>Quercus rubra</i>	Northern Red Oak	16.0"	Moderate-Poor	On slope, no disturbance from trail, dead broken limbs with decay, lost leader	
204	<i>Quercus alba</i>	White Oak	18.6"	Moderate	Adventitious limbs, broken dead limbs with decay	
205	<i>Quercus alba</i>	White Oak	20.5"	Moderate	Butt rot, adventitious limbs, broken dead limbs with decay, co-dominant leaders	
206*	<i>Quercus alba</i>	White Oak	34.5"	Moderate	Adventitious limbs, broken dead limbs with decay, die-back, co-dominant leaders, die-back target pathway can be mitigated	
207	<i>Quercus alba</i>	White Oak	21.7"	Moderate-Poor	Butt rot, exposed roots, adventitious limbs, broken dead limbs, unable to properly assess due to adventitious limbs	
208	<i>Quercus alba</i>	White Oak	22.3"	Moderate	No earthrow from trail, adventitious limbs, unable to assess because of adventitious limbs	
209	<i>Quercus alba</i>	White Oak	21.0"	Moderate	Butt rot, adventitious limbs, broken dead limbs with decay, die-back	
210*	<i>Quercus alba</i>	White Oak	30.2"	Moderate-Poor	On slope, no disturbance from trail, aspicular damage, co-dominant leaders, galls at branch union, broken dead limbs with decay, die-back, adventitious limbs, butt rot, Cherry growing out of root collar	

SIGNIFICANT TREE CHART					COMMENTS
TREE NUMBER	BOTANICAL NAME	COMMON NAME	SIZE (D.B.H.)	TREE CONDITION	
211	<i>Quercus alba</i>	White Oak	29.0"	Moderate	Adjacent to trail, no earthenware, old poison ivy vines, adventitious limbs, co-dominant leaders, die-back, dead broken limbs with decay, butt rot, toward to root collar
212	<i>Quercus alba</i>	White Oak	19.8"	Moderate	Adventitious limbs, galls on trunk, broken dead limbs with decay, co-dominant leaders
213*	<i>Quercus rubra</i>	Northern Red Oak	39.2"	Poor	Multi-stem, butt rot, adjacent to trail, no earthenware, adventitious limbs, broken dead limbs with decay, dead leaders, die-back, two in decline, poison ivy vine on trunk
214*	<i>Quercus alba</i>	White Oak	30.0"	Moderate-Poor	Poison ivy on trunk, butt rot, galls on trunk, adventitious limbs, no earthenware from trail, broken dead limbs, co-dominant leader
215	<i>Quercus alba</i>	White Oak	21.7"	Moderate	Adjacent to trail, no earthenware, tree has been pruned, adventitious limbs, butt rot, uneven canopy, lost leader area of decay now
216	<i>Pinus strobus</i>	White Pine	16.5"	Moderate	Pruned for overhead wires, dead limbs, co-dominant leader
217	<i>Pinus strobus</i>	White Pine	15.5"	Moderate	Lower dead limbs
218	<i>Pinus strobus</i>	White Pine	16.4"	Moderate	Pruned for overhead wires, co-dominant leader
219	<i>Pinus strobus</i>	White Pine	24.4"	Moderate	Pruned for overhead wires, co-dominant leader, possible butt rot
220	<i>Quercus rubra</i>	Northern Red Oak	21.8"	Poor	Broken dead limbs, co-dominant leaders, poor canopy
221*	<i>Acer rubrum</i>	Red Maple	33.2"	Poor	Roots flare and butt have cankers, sap-sucker damage, dead broken limbs with decay, very large canker at branch union with borer damage, uphill from path, minor cut in critical root zone, adventitious limbs, die-back
222	<i>Liriodendron tulipifera</i>	Tulip Poplar	19.3"	Moderate	Down grade of trail, minimal cut in critical root zone, adventitious limbs, broken dead limbs with decay
223	<i>Platanus occidentalis</i>	Sycamore	26.0" & 18.0" (Estimate)	Moderate-Poor	Multi-stem, trail leader, now cavity with major decay, response wood growth in butt of tree, grade vine and poison ivy climbing tree, adjacent girdle on trail to reinforce swale, broken dead limbs with decay, co-dominant leaders
224	<i>Liriodendron tulipifera</i>	Tulip Poplar	18.3"	Moderate	Uphill from trail and dip sap installation, major phototropic lean, possible butt rot, cavity with decay, adventitious limbs, possible vertical crack from root collar in small cavity
225	<i>Liriodendron tulipifera</i>	Tulip Poplar	18.3"	Good-Moderate	Uphill of cut from trail, possible 1-1.0" cut, adventitious limbs, grape vine climbing tree, broken dead limbs with decay
226	<i>Liriodendron tulipifera</i>	Tulip Poplar	21.4"	Good-Moderate	Uphill of cut, dead limbs around trunk, adventitious limbs
227	<i>Liriodendron tulipifera</i>	Tulip Poplar	15.5"	Moderate	Adjacent to trail, 1.5-2" cut, adventitious limbs, Virginia creeper climbing trunk, dead broken limbs with decay
228	<i>Liriodendron tulipifera</i>	Tulip Poplar	16.6"	Moderate	Down grade of trail, fill in critical root zone, 30% visible girdling root, phototropic bend in upper trunk, adventitious limbs
229	<i>Liriodendron tulipifera</i>	Tulip Poplar	13.7"	Moderate	Down grade of trail, close to stream, adventitious limbs, broken dead limbs with decay, grape vine climbing trunk
230	<i>Liriodendron tulipifera</i>	Tulip Poplar	16.8"	Moderate	Black mildew on trunk, down grade of trail, phototropic bend in trunk, adventitious limbs, up grade of stream, response wood growth at root collar, possible butt rot
231	<i>Liriodendron tulipifera</i>	Tulip Poplar	18.8"	Moderate	Down grade of trail, cut and fill in critical root zone, adventitious limbs, co-dominant leaders, grape vine in canopy, possible butt rot
232	<i>Ailanthus altissima</i>	Tree-of-Heaven	19.1"	Moderate	Adjacent to pool fence, up grade of trail, adventitious limbs, possible butt rot
233	<i>Liriodendron tulipifera</i>	Tulip Poplar	18.8"	Moderate	Uphill of trail cut, up to 2" of cut, less than 5' away from trunk, adventitious limbs, broken dead limbs with decay
234	<i>Liriodendron tulipifera</i>	Tulip Poplar	15.5"	Good-Moderate	Uphill from trail less than 5' from 1-2" cut, vine climbing tree, close to giant swing, adventitious limbs
235	<i>Platanus occidentalis</i>	Sycamore	17.5"	Moderate	Downhill and adjacent to trail, fill placed on uphill trunk, response wood growth in butt of tree, co-dominant leaders
236*	<i>Liriodendron tulipifera</i>	Tulip Poplar	36.9"	Moderate	Down grade of trail, close to stream & platform for swing, located on steep slope, phototropic lean, broken dead limbs with decay, co-dominant, die-back
237*	<i>Liriodendron tulipifera</i>	Tulip Poplar	38.0" (Estimate)	Moderate	Close to stream, located on steep slope close to platform for swing, cables for swing attached to tree, co-dominant leaders, broken dead limbs with decay, die-back
238	---	---	15.0"	Stump	-----
239*	<i>Liriodendron tulipifera</i>	Tulip Poplar	38.0" (Estimate)	Moderate	Virginia creeper and poison ivy on trunk, located on steep slope, adjacent to swing platform, cable for swing attached to upper trunk, co-dominant leaders, response wood growth at branch union, die-back, broken dead limbs
240*	<i>Ailanthus altissima</i>	Tree-of-Heaven	18.0"	Moderate	Adjacent to fence and platform for swing, butt through trunk for structure, pulley attached to upper trunk, galls on trunk, broken dead limbs with decay
241	<i>Platanus occidentalis</i>	Sycamore	19.0" (Estimate)	Moderate-Poor	Poison ivy on trunk, phototropic bends in trunk, bolts through trunk with cables around trunk for swing platform, uphill of 2' cut for trail
242	<i>Liriodendron tulipifera</i>	Tulip Poplar	13.4"	Moderate	Adjacent to trail and big cut from trail, minor fill and wood chips in critical root zone, adjacent to new stairs for platform, new cable and blocks attached to trunk for stairs, adventitious limbs, phototropic bends in trunk, broken dead limbs with decay, co-dominant leader
243	<i>Juglans nigra</i>	Black Walnut	12.8"	Moderate	Can't see canopy, can't properly assess, adjacent to cut and fill for trail
244	<i>Acer saccharum</i>	Sugar Maple	27.8"	Moderate	Exposed roots, dead poison ivy on trunk, tree has been pruned, adventitious limbs, co-dominant leaders, response wood growth at branch union, small tanger, sap sucker damage
245	<i>Pinus strobus</i>	White Pine	25.8"	Moderate	Exposed roots, about 15% visible girdling roots, possible butt rot, tree has been pruned, dead broken limbs
246	<i>Acer saccharum</i>	Sugar Maple	22.0"	Moderate	Exposed roots, tree has been pruned, sap rot, some sap sucker damage, co-dominant leaders, adventitious limbs, die-back, small tangents
247	<i>Platanus occidentalis</i>	Sycamore	27.7"	Moderate	Adjacent to fence, possible butt rot, phototropic bend in trunk, co-dominant leaders, adventitious limbs, die-back, Virginia creeper climbing on trunk
248	<i>Nyssa virginiana</i>	Eastern Red Cedar	16.0" (Estimate)	Moderate	Poison ivy and Virginia creeper climbing trunk, adjacent to fence, response wood growth in trunk, dead broken lower limbs
249	<i>Platanus occidentalis</i>	Sycamore	24.2"	Moderate	Exposed wounded roots, possible butt rot, tree has been pruned, broken dead limbs with decay, die-back
250	<i>Platanus occidentalis</i>	Sycamore	20.8"	Moderate	Adjacent to fence, exposed roots, multiple wounds on trunk roosting sap, galls on trunk, broken dead limbs with decay, adventitious limbs
251	<i>Acer saccharum</i>	Sugar Maple	20.8"	Poor	Exposed roots, response wood growth in roots and roots collar, sap sucker damage, adventitious limbs, co-dominant leaders, dead broken limbs with decay, butt rot with carpenter ants
252	<i>Acer rubrum</i>	Red Maple	17.8"	Moderate	Adjacent to fence, dead vines on trunk, phototropic lean in trunk, broken dead limbs, adventitious limbs, co-dominant leaders, die-back
253	<i>Nyssa sylvatica</i>	Black Gum	12.0"	Moderate-Poor	Canker on root collar with response wood growth, phototropic lean in trunk, co-dominant leaders, adventitious limbs
254	<i>Nyssa sylvatica</i>	Black Gum	12.1"	Moderate-Poor	Virginia creeper climbing trunk, 25% visible girdling roots, possible butt rot, phototropic lean in trunk, adventitious limbs, co-dominant leaders, thin canopy
255	<i>Platanus occidentalis</i>	Sycamore	19.2"	Moderate	Adjacent to trail, 1-1.0" cut for trail, exposed root was neatly cut, possible response wood growth in butt of tree, grape vine climbing trunk and going to canopy, co-dominant leaders, adventitious limbs
256	<i>Platanus occidentalis</i>	Sycamore	16.0"	Moderate	Uphill from trail, cut 1-1.0", phototropic lean, co-dominant leaders, adventitious limbs, die-back
257	<i>Juglans nigra</i>	Black Walnut	15.0"	Moderate	Located on steep slope, adventitious limbs, dead broken limbs with decay
258	<i>Liriodendron tulipifera</i>	Tulip Poplar	12.1"	Moderate	Located on steep slope, down grade of trail, adventitious limbs, broken dead limbs with decay
259	<i>Ulmus americana</i>	American Elm	18.0"	Moderate-Poor	2-4' from trail, cut and fill in critical root zone, fill on root flare and trunk, wood chips on path, multiple grape vines climbing trunk, co-dominant leaders, broken dead leaders
260	<i>Platanus occidentalis</i>	Sycamore	14.3"	Moderate-Poor	On trail edge, cut and fill in critical root zone, wood chips, 1-1.0" cut, co-dominant leaders, adventitious limbs, thin canopy, die-back
261	<i>Acer rubrum</i>	Red Maple	14.2"	Moderate	Adjacent to fence, 10' from cut for trail, phototropic bend in trunk, grape vine climbing trunk, broken dead limbs with decay
262	<i>Liriodendron tulipifera</i>	Tulip Poplar	15.3"	Moderate	Adjacent to trail, fill up to 2" from trail, wood chips, grape vine climbing tree, broken dead limbs with decay
263	<i>Platanus occidentalis</i>	Sycamore	15.3"	Moderate	Located down grade of trail, up to 2" of fill in critical root zone and wood chips, located on steep slope, phototropic bend in trunk, thin canopy
264	<i>Acer rubrum</i>	Red Maple	12.0"	Moderate	Adjacent to trail, 1.5-2" cut, phototropic lean in trunk, adventitious limbs, co-dominant leaders, die-back, broken dead limbs with decay
265	<i>Acer rubrum</i>	Red Maple	13.1"	Moderate	Located adjacent to fence, multi-stem, possible butt rot and cavity, phototropic bends in trunk, broken dead limbs with decay, co-dominant leaders
266	<i>Acer rubrum</i>	Red Maple	26.6"	Moderate-Poor	Co-dominant leaders, response wood growth at branch union, adjacent to trail, cut and fill in critical root zone, broken dead limbs with decay
267	<i>Acer rubrum</i>	Red Maple	20.0"	Moderate	Adjacent to trail, cut and fill for trail, below grade of trail, fill on root collar and wood chips, new wound above root collar, attack by Virginia creeper climbing trunk, co-dominant leaders, adventitious limbs
268	<i>Platanus occidentalis</i>	Sycamore	19.2"	Good	Up grade from trail, adjacent to trail, 2' cut from trail
269	<i>Acer rubrum</i>	Red Maple	18.1"	Moderate	Adjacent to fence, uphill from trail, phototropic bends in trunk, adventitious limbs, dead limbs
270	<i>Platanus occidentalis</i>	Sycamore	17.0"	Moderate-Poor	Uphill from trail, co-dominant leaders, thin canopy, die-back, dead broken limbs
271	<i>Platanus occidentalis</i>	Sycamore	12.0"	Moderate	2-3' of fill adjacent to trunk and held back with logs, co-dominant leaders, thin canopy
272	<i>Ulmus americana</i>	American Elm	12.4"	Moderate-Poor	Less than 10' down grade of trail, adventitious limbs, broken dead limbs, co-dominant leaders
273	<i>Liriodendron tulipifera</i>	Tulip Poplar	20.2"	Moderate	Down grade of trail, adventitious limbs, co-dominant leaders
274	<i>Carya glabra</i>	Pignut Hickory	23.8"	Moderate	Down grade of trail, cut and fill for trail in critical root zone, co-dominant leaders, response wood growth at branch union, adventitious limbs, broken dead limbs, die-back
275	<i>Platanus occidentalis</i>	Sycamore	17.5"	Moderate	Possible butt rot, co-dominant leaders, adventitious limbs, thin canopy
276	<i>Platanus occidentalis</i>	Sycamore	20.8"	Stump	-----
277	<i>Nyssa sylvatica</i>	Black Gum	14.0" (Estimate)	Moderate	Multiple poison ivy vines and greenbrier, co-dominant leaders, adventitious limbs
278*	<i>Ulmus americana</i>	American Elm	30.2"	Moderate	Good root flare, co-dominant leaders, galls on trunk, response wood growth at branch union, adventitious limbs, broken dead limbs with decay
279	---	---	21.3"	Dead	Down grade of trail
280	<i>Platanus occidentalis</i>	Sycamore	15.8"	Moderate	Adjacent to trail, maybe less than 8' of cut adjacent to tree, adventitious limbs, phototropic bends in trunk, dead broken limbs, possible butt rot

SIGNIFICANT TREE CHART					COMMENTS
TREE NUMBER	BOTANICAL NAME	COMMON NAME	SIZE (D.B.H.)	TREE CONDITION	
281	<i>Platanus occidentalis</i>	Sycamore	14.5"	Moderate	Surrounded by greenbrier, upgrade of trail, 1.3' cut, dead broken limbs with decay, thin canopy
282	<i>Platanus occidentalis</i>	Sycamore	16.1"	Moderate	Poison ivy, co-dominant leaders, die-back, dead broken limbs with decay
283	<i>Platanus occidentalis</i>	Sycamore	15.7"	Moderate	Adjacent to trail 1.2' of cut around 75-75% of tree, phototropic bend in trunk, adventitious limbs, die-back, dead broken limbs
284	<i>Platanus occidentalis</i>	Sycamore	13.2"	Moderate	Maybe 1' of cut in critical root zone, adventitious limbs
285	<i>Platanus occidentalis</i>	Sycamore	17.3"	Moderate	Phototropic lean, adventitious limbs, dead broken limbs with decay
286	<i>Platanus occidentalis</i>	Sycamore	14.7"	Moderate-Poor	Virginia creeper climbing trunk, fill dirt in critical root zone from trail, phototropic bend in trunk, adventitious limbs, thin canopy
287	<i>Platanus occidentalis</i>	Sycamore	13.7"	Poor	Bittersweet and Virginia creeper climbing trunk, adventitious limbs, lost leader
288	<i>Platanus occidentalis</i>	Sycamore	14.4"	Moderate	Down grade of trail, adventitious limbs, phototropic lean, co-dominant leaders
289	<i>Platanus occidentalis</i>	Sycamore	14.2"	Moderate	Adventitious limbs, phototropic lean, grapevine climbing trunk, Japanese honeysuckle is around trunk
290	<i>Platanus occidentalis</i>	Sycamore	14"	Dead	-----
291	<i>Fagus grandifolia</i>	American Beech	14.0"	Moderate	Down grade of trail, cut and fill in critical root zone, wood chips, co-dominant leaders, adventitious limbs
292	<i>Platanus occidentalis</i>	Sycamore	20.3"	Moderate	Adjacent to trail, fill in critical root zone, new wound to upper trunk, adventitious limbs, located on steep slope, co-dominant leaders, die-back, broken dead limbs with decay
293	<i>Ulmus americana</i>	American Elm	18.0"	Moderate-Poor	Down grade of trail, cut and fill in critical root zone, fill on trunk, multi-stem, included wood, response wood growth at branch union, leaders have crossed and fused together, co-dominant, broken dead limbs with decay
294	<i>Platanus occidentalis</i>	Sycamore	13.7"	Moderate	Phototropic bends in trunk, adjacent to 1" +/- of cut for trail, wood chips, adventitious limbs, thin canopy
295	<i>Liriodendron tulipifera</i>	Tulip Poplar	16.4"	Moderate	Uphill of trail, adventitious limbs, broken dead limbs with decay
296	<i>Platanus occidentalis</i>	Sycamore	21.0"	Moderate	Adjacent to trail, about 1' of cut, adventitious limbs, co-dominant leaders
297	<i>Liriodendron tulipifera</i>	Tulip Poplar	24.0"	Moderate	Up grade of trail, adventitious limbs, dead broken limbs with decay, exposed roots, aphids in trunk
298	<i>Platanus occidentalis</i>	Sycamore	17.8"	Moderate	Adjacent to trail, poison ivy and Virginia creeper on trunk, adventitious limbs, can't properly assess due to adventitious limbs
299	<i>Platanus occidentalis</i>	Sycamore	12.7"	Moderate	Uphill of trail, 1' of cut and wood chips, two small snags resting on trunk, possible butt rot, adventitious limbs
300	<i>Platanus occidentalis</i>	Sycamore	19.6"	Moderate	Up grade of trail, 1' of cut, co-dominant leaders, adventitious limbs
301	<i>Platanus occidentalis</i>	Sycamore	15.1"	Poor	Butt rot, nesting cavities, phototropic bends in trunk, adventitious limbs, hazard tree, large trail
302*	<i>Liriodendron tulipifera</i>	Tulip Poplar	41.0"	Moderate	Uphill of trail, maybe 6-8' of cut in critical root zone with wood chips, adventitious limbs, co-dominant leaders, broken dead limbs in canopy
303	<i>Platanus occidentalis</i>	Sycamore	12.0"	Moderate	Adventitious limbs, broken dead limbs, uphill of trail
304*	<i>Liriodendron tulipifera</i>	Tulip Poplar	38.0" (Estimate)	Moderate-Poor	Poison ivy on trunk, swing resting on trunk, possible butt rot, wood chips for trail, no signs of earthenware, broken dead limbs with decay
305*	<i>Liriodendron tulipifera</i>	Tulip Poplar	36.0" (Estimate)	Moderate	Adjacent to stream and trail, no earthenware, wood chips, poison ivy climbing trunk, co-dominant leaders, adventitious limbs, broken dead limbs with decay
306	<i>Ulmus americana</i>	American Elm	13.4"	Moderate	Adjacent to stream and trail, wood chips, no signs of earthenware, die-back, dead broken limbs
307	---	---	30" (Estimate)	Stump	Adjacent to stream

** SPECIES TREE
** TREE ≥ 10% OF THE CURRENT COUNTY/STATE CHAMPION FOR THE SPECIES



ISA Certified Arborist MA-4514A
ISA Tree Risk Assessment Qualified

THE MARYLAND-NATIONAL CAPITAL
PARK AND PLANNING COMMISSION
NR/PSD PLAN
Approved: 4/20/2020
NR/PSD NO. 8/27/2017
Data Approved: 8/27/2017
Expiration Date: 8/27/2019
Signature: Stephen Beck Date: 8/27/2019

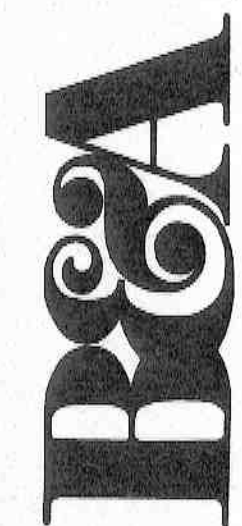
NATURAL RESOURCES INVENTORY / FOREST STAND DELINEATION
BRETTON WOODS RECREATION CENTER
Montgomery County, Maryland

Received
M-NCPPC
JUL 24 2017
Montgomery County
Planning Department

Sheet 5 of 5
Revisions
07/20/2017

date: 06/29/2017
scale:

Berning & Associates, Inc.
Lead Planning Consultants
8933 Shady Grove Court
Guthrieburg, MD 20877
(301) 944-0240



GENERAL NOTES

SURVEY:

- THIS SURVEY WAS PREPARED IN THE MARYLAND STATE PLANE DATUM NAD83/91 AND WAS ESTABLISHED VIA STATIC GLOBAL POSITIONING SESSIONS PERFORMED BY POTOMAC VALLEY SURVEYS, L.L.C. AND POST PROCESSED UTILIZING THE NATIONAL GEODETIC SURVEYS' ON-LINE POSITIONING USER SERVICE (OPUS).
- THE ELEVATIONS SHOWN HEREON ARE IN NAVD 88 MARYLAND STATE PLANE DATUM PER VIA STATIC GLOBAL POSITIONING SESSIONS PERFORMED BY POTOMAC VALLEY SURVEYS, L.L.C. AND POST PROCESSED UTILIZING THE NATIONAL GEODETIC SURVEYS' ON-LINE POSITIONING USER SERVICE (OPUS).
- TOPOGRAPHY BASED ON FIELD RUN TOPO PERFORMED AUGUST 2017.

ZONING:

PROPERTY ZONED: R-C

DISTURBED AREA:

- PROJECT TO DISTURB 22,269 SQ.FT.
- CONTRACTOR IS RESPONSIBLE TO ENSURE POSITIVE DRAINAGE AWAY FROM FOUNDATION WALLS. CONTRACTOR IS TO CONTACT P.V.S. IF ANY GRADING QUESTIONS ARISE.
- PRIOR TO FINAL VEGETATIVE STABILIZATION, ALL DISTURBED AREAS MUST BE TOPSOILED PER THE MONTGOMERY COUNTY "STANDARDS and SPECIFICATIONS FOR TOPSOIL"

FOREST CONSERVATION:

- SEE APPROVED TREE PROTECTION PLAN PRIOR TO ANY CLEARING.
- CONSULT WITH ARBORIST ON ALL TREES THAT MAY BE AFFECTED BY THE LIMITS OF THE PROPOSED CONSTRUCTION.

STORMWATER MANAGEMENT:

- SPLASH BLOCKS ARE TO BE INSTALLED AT ALL DOWN SPOUTS. DOWN SPOUTS ARE TO BE DIRECTED AWAY FROM EXISTING STRUCTURES.
- CONTRACTOR IS RESPONSIBLE TO ENSURE POSITIVE DRAINAGE AWAY FROM FOUNDATION WALLS. CONTRACTOR IS TO CONTACT P.V.S. IF ANY GRADING QUESTIONS ARISE.
- WHERE TWO (2) 4" SCH 40 (OR OTHER TYPE) UNDERGROUND DRAINAGE PIPES CONVERGE INCREASE TO 6" SCH 40 (OR OTHER TYPE) UNDERGROUND DRAINAGE PIPES

UTILITIES:

- THE LOCATION OF UTILITIES AS SHOWN HEREON WERE PLOTTED BY USING ABOVE GROUND EVIDENCE. POTOMAC VALLEY SURVEYS, LLC MAKES NO GUARANTEES THAT THE UTILITIES SHOWN HEREON COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED.
- CONTACT "MISS UTILITY" AT 1-800-257-7777, 48 HOURS PRIOR TO THE START OF EXCAVATION.

SEDIMENT CONTROL:

- STABILIZED CONSTRUCTION ENTRANCE SHALL BE PLACED AS NEEDED DURING CONSTRUCTION BY THE AUTHORIZED M.C.D.P.S. REPRESENTATIVE (INSPECTOR)

IT IS THE RESPONSIBILITY OF PERMITTEE/OWNER OF THIS SITE TO OBTAIN ALL REQUIRED PERMITS PRIOR TO ISSUANCE OF THE APPROVED SEDIMENT CONTROL PERMIT					
TYPE OF PERMIT	REQD.	NOT REQD.	PERMIT#	EXPIRATION DATE	WORK RESTRICTION DATES
WCODPS Floodplain District		X			
WATERWAYS/WETLAND(S):		X			
a. Corps of Engineers		X			
b. MDE		X			
c. MDE Water Quality Certification		X			
MDE Dam Safety		X			
DPS Roadside Trees Protection Plan	X			<u>Approval Date</u>	
N.P.D.E.S. NOTICE OF INTENT		X			
FEMA LOMR (Required Post Construction)		X			<u>Date Filed</u>
OTHERS (Please List)		X			

RIVER ROAD
(MD. RTE. 190)

RIGHT OF WAY IMPERVIOUS
627 Sq.Ft.

ONSITE IMPERVIOUS
6,529 Sq.Ft.

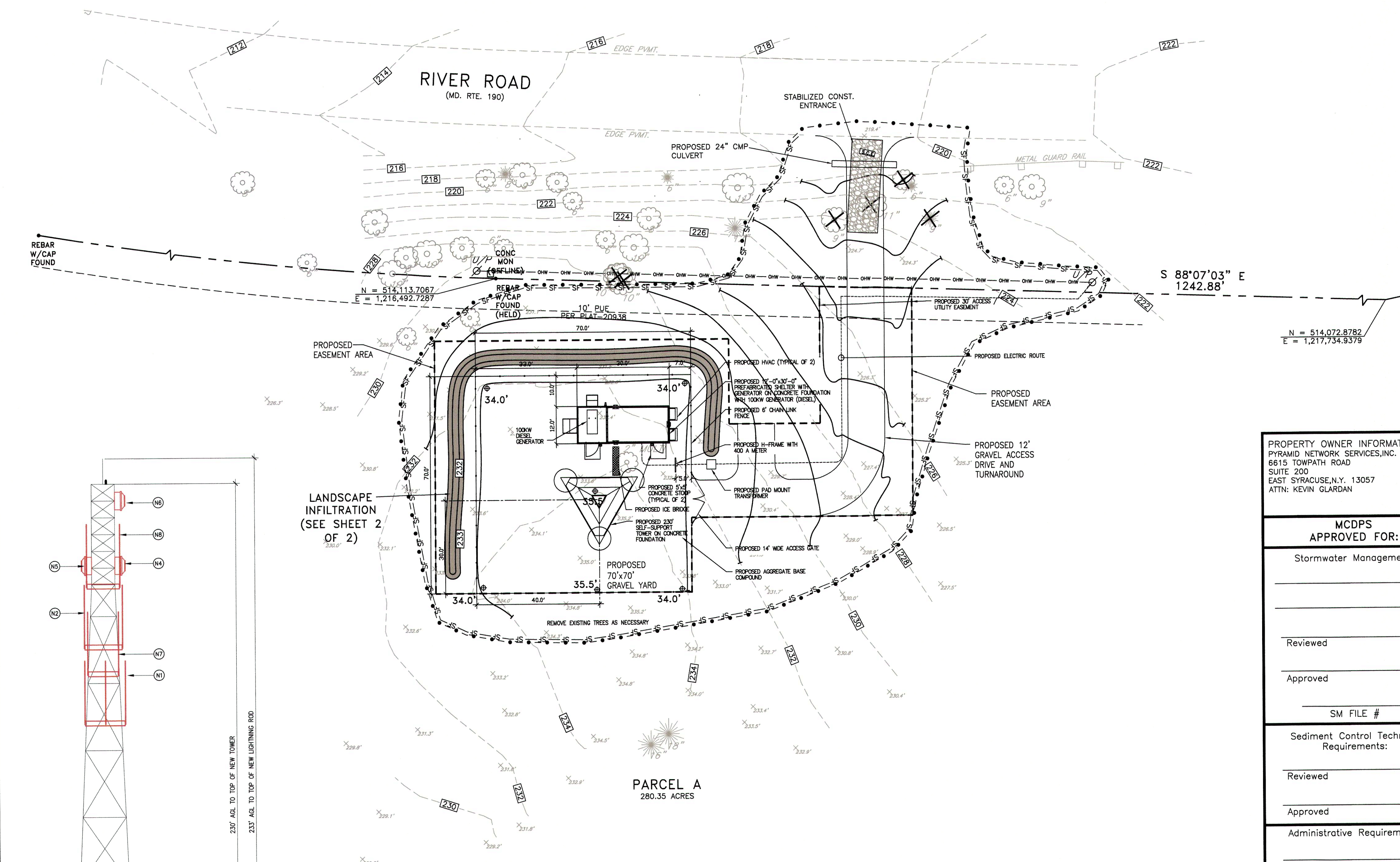
LANDSCAPE INFILTRATION

GRAVEL

EASEMENT

PARCEL A
280.35 ACRES

MONTGOMERY COUNTY INTERIM SOIL SURVEY - VOLUME II
- 21C - PENN SILT LOAM, 8 TO 15 PERCENT SLOPES



1 NOT TO SCALE

A record set of approved Sediment Control/Stormwater Management plans must be maintained on-site at all times. In addition to stormwater management items, these plans must include the number and location of all trees proposed to be planted to comply with the Tree Canopy Law. Any approved modifications or deletions of stormwater practices or tree canopy plantings or information must be shown on this record set of plans and on the Tree Canopy Requirements table. Upon completion of the project, this record set of plans, including hereon this signed Record Drawing Certification, must be submitted to the MCDPS inspector. In addition to this Record Drawing Certification, a formal Stormwater Management As-Built submission is not required for this project.

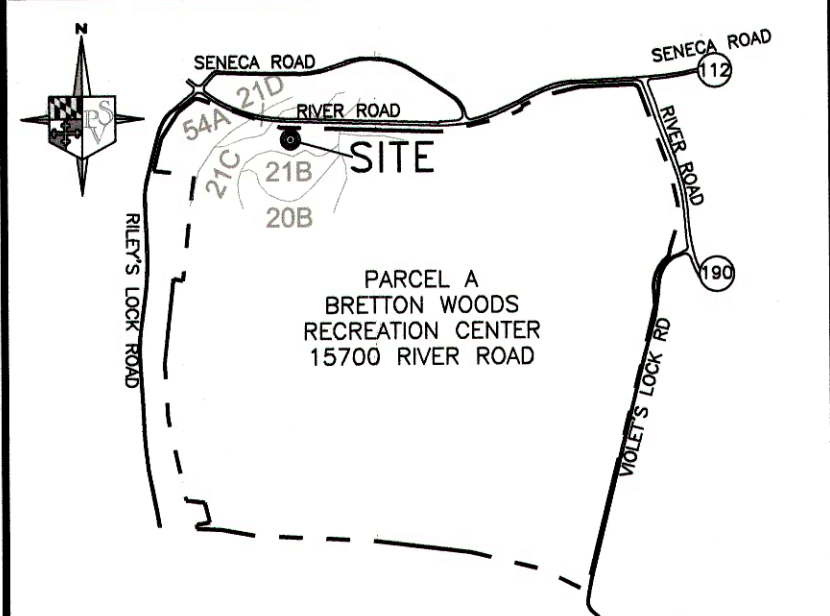
If this project is subject to a Stormwater Management Right of Entry and Maintenance Agreement, that document is recorded in Montgomery County Land Records at:

Liber _____ Folio _____. This Record Drawing will serve as the referenced in the recorded document.

"This record drawing accurately and completely represents the stormwater management practices and tree canopy plantings as they were constructed or planted. All stormwater management practices were constructed per the approved Sediment Control/Stormwater Management plans or subsequent approved revisions."

_____,
Owner/Developer Signature Date

FIELD CHECK OF RECORD DRAWINGS BY MCDPS INSPECTOR:
INITIALS: _____ DATE: _____



NOT TO SCALE

EXISTING CONTOURS

EXISTING SPOT GRADE

PROPOSED CONTOURS

PROPOSED SPOT GRADE

PROPOSED SILT FENCE

PROP. SUPER SILT FENCE

PROPOSED LIMIT OF DISTURBANCE

ITEMS TO BE REMOVED

DOWNSPOUTS

CLEAN OUT

DRAINAGE PATH

STABILIZED CONSTRUCTION ENTRANCE

PROPOSED UNDERGROUND DRAIN PIPE

PROPOSED PERFORATED DRAIN PIPE

RETAINING WALLS (DESIGN BY OTHERS)

CRITICAL ROOT ZONE OF EX. TREE

EX. TREE

EX. TREE TO BE REMOVED

SURVEYOR'S CERTIFICATION

I HEREBY CERTIFY THAT THE INFORMATION SHOWN
HEREON IS BASED ON ACTUAL FIELD MEASUREMENTS
AND WAS OBTAINED BY ME OR OTHERS UNDER MY
SUPERVISION IN ACCORDANCE WITH COMAR
09-13-06-12 AND THAT THE INFORMATION IS TRUE
AND CORRECT TO THE BEST OF MY KNOWLEDGE AND
BELIEF.


DAVID P. MOWATT
MARYLAND PROFESSIONAL LAND SURVEYOR
LAND SURVEYOR #21156
EXPIRES 06-20-18

DATE: 10/13/17 REMOVE WMATA SHELTER W/ GENERATOR

THIS PLAN PREPARED FOR: PYRAMID NETWORK SERVICES, INC. 6615 TOWPATH ROAD SUITE 200 EAST SYRACUSE, N.Y. 13057 ATTN: KEVIN GLARDAN	JOB No. 017-066
	DATE: 09-06-17
	DRAWN BY: SAG
	SHEET: SWM/SC 1 OF 2

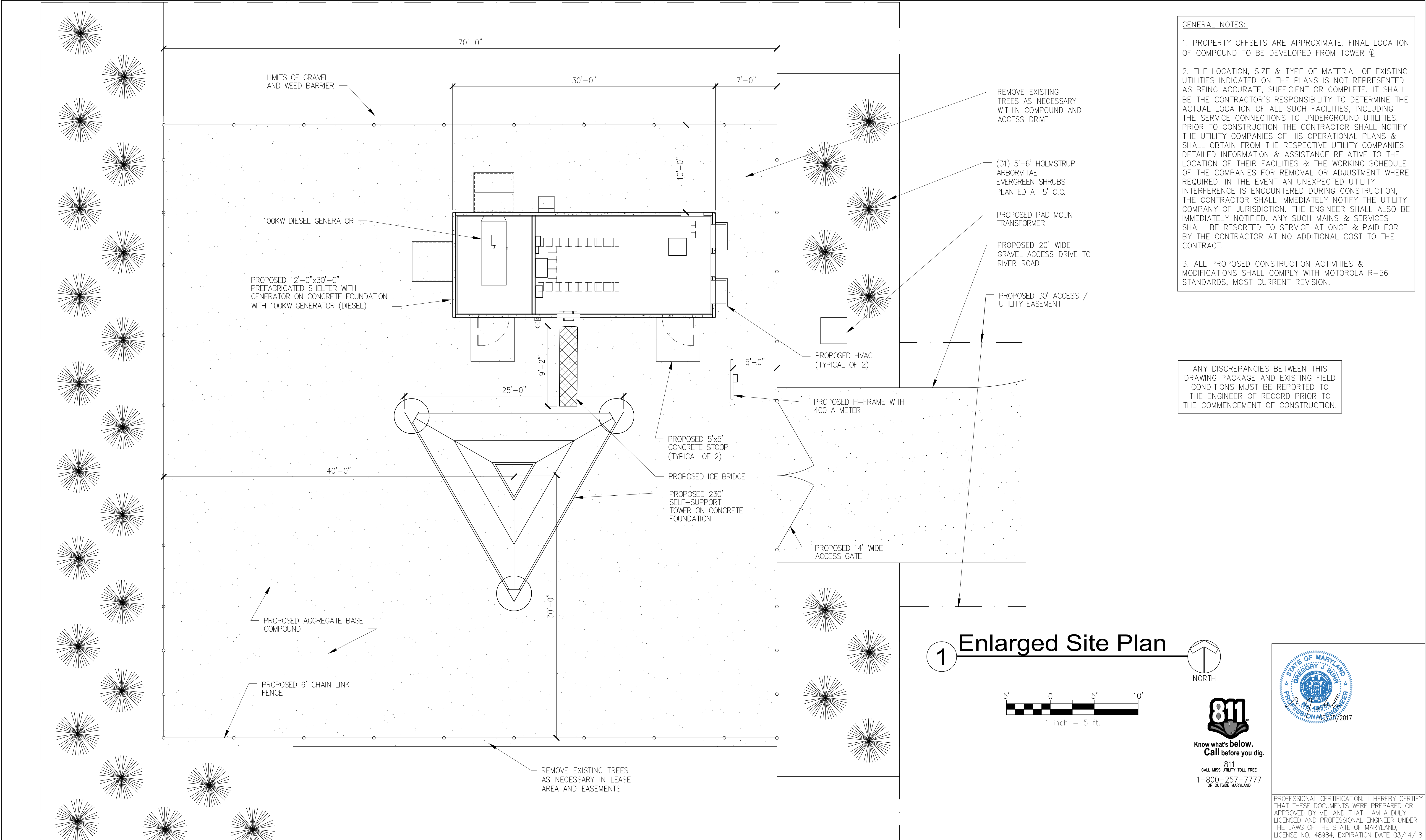
SITE GRADING
STORMWATER MANAGEMENT
SEDIMENT CONTROL PLAN
15700 RIVER ROAD
BRETTON WOODS
RECREATION CENTER
PARCEL A
PLAT No. 20938
MONTGOMERY COUNTY, MARYLAND

POTOMAC VALLEY



SURVEYS

20010 FISHER AVENUE, SUITE F
POOLESVILLE, MARYLAND
1-888-349-5090



- GENERAL NOTES:**
1. PROPERTY OFFSETS ARE APPROXIMATE. FINAL LOCATION OF COMPOUND TO BE DEVELOPED FROM TOWER ☺
 2. THE LOCATION, SIZE & TYPE OF MATERIAL OF EXISTING UTILITIES INDICATED ON THE PLANS IS NOT REPRESENTED AS BEING ACCURATE, SUFFICIENT OR COMPLETE. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE ACTUAL LOCATION OF ALL SUCH FACILITIES, INCLUDING THE SERVICE CONNECTIONS TO UNDERGROUND UTILITIES. PRIOR TO CONSTRUCTION THE CONTRACTOR SHALL NOTIFY THE UTILITY COMPANIES OF HIS OPERATIONAL PLANS & SHALL OBTAIN FROM THE RESPECTIVE UTILITY COMPANIES DETAILED INFORMATION & ASSISTANCE RELATIVE TO THE LOCATION OF THEIR FACILITIES & THE WORKING SCHEDULE OF THE COMPANIES FOR REMOVAL OR ADJUSTMENT WHERE REQUIRED. IN THE EVENT AN UNEXPECTED UTILITY INTERFERENCE IS ENCOUNTERED DURING CONSTRUCTION, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE UTILITY COMPANY OF JURISDICTION. THE ENGINEER SHALL ALSO BE IMMEDIATELY NOTIFIED. ANY SUCH MAINS & SERVICES SHALL BE RESORTED TO SERVICE AT ONCE & PAID FOR BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE CONTRACT.
 3. ALL PROPOSED CONSTRUCTION ACTIVITIES & MODIFICATIONS SHALL COMPLY WITH MOTOROLA R-56 STANDARDS, MOST CURRENT REVISION.

ANY DISCREPANCIES BETWEEN THIS DRAWING PACKAGE AND EXISTING FIELD CONDITIONS MUST BE REPORTED TO THE ENGINEER OF RECORD PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.

1

Enlarged Site Plan

NORTH

5'

0

5'

10'

1 inch = 5 ft.

811

Know what's below.
Call before you dig.

811
CALL MISS UTILITY TOLL FREE
1-800-257-7777
OR OUTSIDE MARYLAND



PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED AND PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 48984, EXPIRATION DATE 03/14/18

O	09-25-17	ZONING DRAWING	RNV	SAH	
M	09-22-17	ZONING REVIEW SET	RNV	SAH	
L	09-20-17	REVISED LANDSCAPING PLAN	SAH	SAH	
K	09-19-17	REVISED LANDSCAPING PLAN	SAH	SAH	
J	09-15-17	REMOVED WMATA EQUIPMENT	SAH	SAH	
NO.	DATE	REVISIONS	BY	CHK	APP'D

MISSION 1
COMMUNICATIONS
6355 Constitution Drive, Suite A
Fort Wayne, IN 46804



ENLARGED SITE PLAN

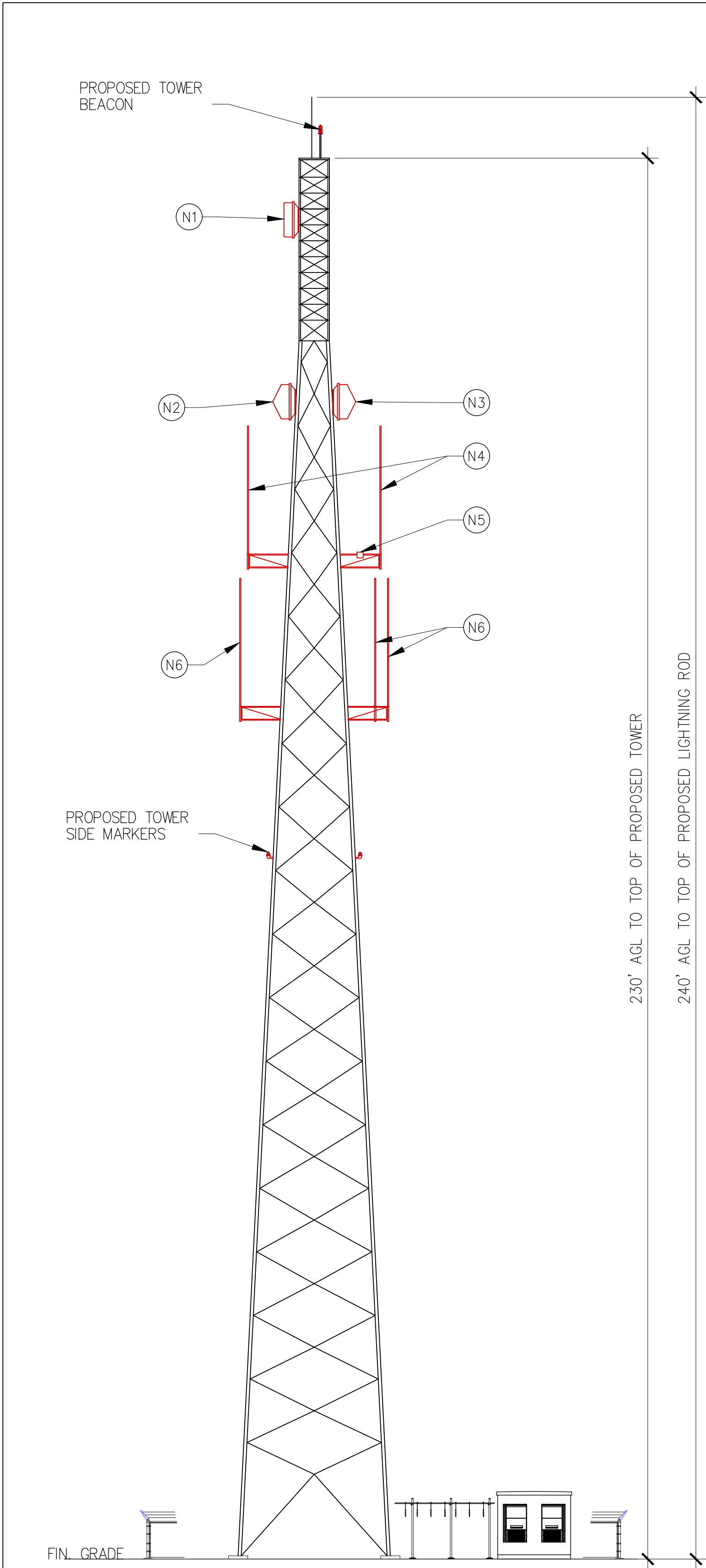
BRETTON WOODS
GOLF COURSE
15700 RIVER RD.
GERMANTOWN, MD 20874

PRINTED AT
24x36

C-3

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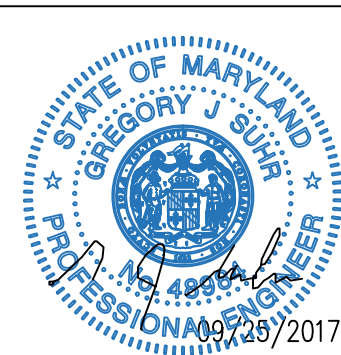
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1 Tower Elevation
NOT TO SCALE

Bretton Woods Golf Course - 230' TOWER LAT: 39 4 40.32 LONG: 77 20 14.66										Antenna/Appurtenance Location Chart				
ANTENNA INFORMATION										FEEDLINE INFORMATION				
ANTENNA ID	MANUFACTURER	MODEL	TYPE	LENGTH	BOTTOM ELEV	RAD CENTER	TOP ELEV.	AZIMUTH	QTY.	TYPE	MANUFACTURER	MODEL	SIZE	QTY.
N1	COMMSCOPE	HP6-59F	MW	6.0'	217.0'	220.0'	223.0'	304.77	1	WAVEGUIDE	COMMSCOPE	EWP63	2"	1
N2	GSA	PAR6-59	MW	6.0'	187.0'	190.0'	193.0'	304.77	1	WAVEGUIDE	COMMSCOPE	EWP63	2"	1
N3	GSA	PAR6-59	MW	6.0'	187.0'	190.0'	193.0'	29.79	1	WAVEGUIDE	COMMSCOPE	EWP63	2"	1
N4	SINCLAIR	SC412-HF2LDF	RX	20.9'	165.0'	175.5'	185.9'	N/A	2	COAX	COMMSCOPE	AVA5-50	7/8"	2
N5	-	-	TTA	-	165.0'	-	-	N/A	1	COAX	COMMSCOPE	LDF4-50	1/2"	1
N6	SINCLAIR	SC412-HF2LDF	TX	20.9'	140.0'	150.5'	160.9'	N/A	3	COAX	COMMSCOPE	AVA6-50	1-1/4"	3
REFER TO TOWER MANUFACTURER DRAWINGS FOR BEACON AND OBSTRUCTION LIGHTING HEIGHTS														

- GENERAL NOTES:
1. TOWER DESIGN BY OTHERS. SEE VALMONT TOWER DESIGN JOB NUMBER 365719-01 DATED MARCH 25, 2017.
 2. ALL VERTICAL TRANSMISSION LINE RUNS FROM THE ANTENNAS SHALL BE GROUNDED NEAR THE TOP & BOTTOM OF THE TOWER(BEFORE THE CABLE MAKES HORIZONTAL TRANSITION & NEAR ENTRY PORT ON THE SHELTER). ADDITIONAL TRANSMISSION LINE GROUND KITS SHALL BE INSTALLED AS NEEDED TO LIMIT THE DISTANCE BETWEEN GROUND KITS TO 75 FEET.
 3. THE CONTRACTOR SHALL CONDUCT A TDR SWEEP TEST ON ALL THE PROPOSEDLY INSTALLED TRANSMISSION LINES TO DETERMINE THE CABLE CONDUCTOR RESISTANCE, CABLE INSERTION LOSS, REFLECTION & STIMULUS RESPONSE MEASUREMENTS. RESULTS TO BE SUBMITTED TO MOTOROLA.
 4. DRIP LOOPS SHALL BE INCORPORATED IN CABLE RUNS TO PREVENT WATER FROM TRICKLING DOWN THE LINES INTO THE SHELTER.
 5. ALL TRANSMISSION LINES SHALL BE MARKED WITH APPROPRIATE COLOR TAPE BANDS (ONE INCH WIDE COLOR TAPE) FOR IDENTIFICATION NEAR THE ANTENNA. JUST BEFORE ENTERING THE SHELTER AS WELL AS INSIDE THE SHELTER, BEFORE CONNECTING TO THE SURGE SUPPRESSORS. SEE EQUIPMENT & COAXIAL CABLE SCHEDULE FOR COLOR CODING SCHEME.

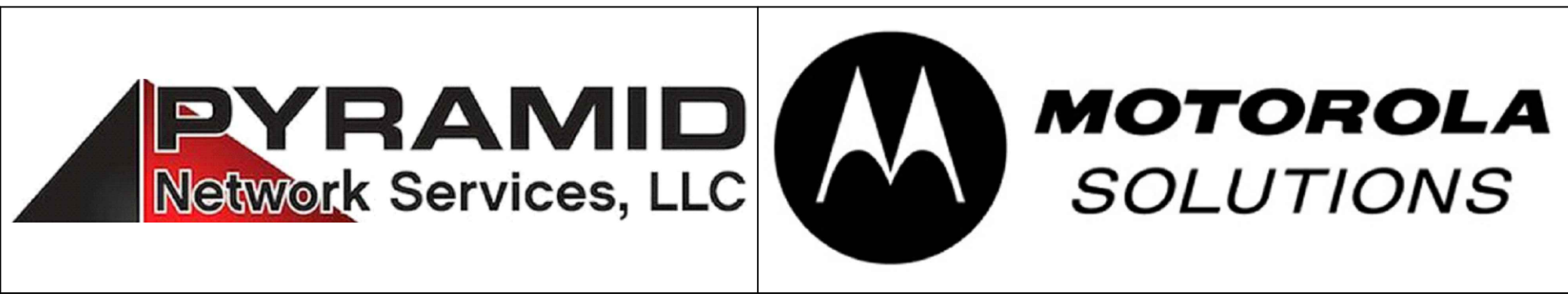


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J	09-15-17	REMOVED WMATA EQUIPMENT	SAH	SAH	
NO.	DATE	REVISIONS	BY	CHK	APP'D



TOWER ELEVATION AND ANTENNA INFORMATION		C-4	THIS DRAWING IS COPYRIGHTED AND IS THE SOLE PROPERTY OF THE OWNER. IT IS PRODUCED SOLELY FOR USE BY THE OWNER AND ITS AFFILIATES. REPRODUCTION OR USE OF THIS DRAWING AND/OR THE INFORMATION CONTAINED IN IT IS FORBIDDEN WITHOUT THE WRITTEN PERMISSION OF THE OWNER.
BRETTON WOODS GOLF COURSE 15700 RIVER RD. GERMANTOWN, MD 20874			
			ITS IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

Definition of Structure Class –ANSI/TIA-222-G

ANSI/TIA-222-G defines Structure Class per ANSI/TIA-222-G and adds additional information on the structure and its performance.

ANSI/TIA-222-G defines the following:

Structure Class I Structure is a structure or location representing a low hazard to the public and damage to property in the event of a failure and/or could be a structure that is optional and/or a delay in response to the structure could be acceptable.

Section A.2.2 defines Structure Class I structure could be a structure that is optional or a delay in response to the structure could be acceptable. A structure that is optional and/or a delay in response to the structure could be acceptable. A structure that is optional and/or a delay in response to the structure could be acceptable.

Commentary: Failure of the structure defined as Structure Class I typical only affects the owner, although service provided may affect other users. Human life is essentially not at risk and the public well-being is largely unaffected by tower failure.

Structure Class II Structure is a structure or location representing a significant hazard to the public and/or damage to property in the event of a failure and/or could be a structure that is optional and/or a delay in response to the structure could be acceptable.

ANSI/TIA-222-G Addendum 2 Annex A Section A.2.2 defines Structure Class II structure could be a structure that is optional and/or a delay in response to the structure could be acceptable. A structure that is optional and/or a delay in response to the structure could be acceptable.

Commentary: Failure of a structure defined as Structure Class II presents significant hazard to human life and/or property if a tower fails. Significant with respect to human life means failure of the structure could result in injury or casualties, but it's very limited in practicality (e.g. someone was on the tower at the time or tower happened to collapse onto persons, during an extreme climatic event (wind, ice or seismic event)). Significant with respect to property means property surrounding the tower could be damaged or destroyed. With respect to reliability, the phrase "Used for services that may be provided by other means" signifies redundancy of service. This redundancy is present in almost all public wireless service, including E911 networks.

Structure Class III Structure is a structure or location representing a substantial hazard to the public and/or damage to property in the event of a failure and/or could be a structure that is optional and/or a delay in response to the structure could be acceptable.

ANSI/TIA-222-G Addendum 2 Annex A Section A.2.2 defines Structure Class III structure could be a structure that is optional and/or a delay in response to the structure could be acceptable. A structure that is optional and/or a delay in response to the structure could be acceptable.

A structure that is optional and/or a delay in response to the structure could be acceptable.

Number of Attaching Entities Rule is Met: A structure that is optional and/or a delay in response to the structure could be acceptable.

A structure that is optional and/or a delay in response to the structure could be acceptable.

A structure that is optional and/or a delay in response to the structure could be acceptable.

A structure that is optional and/or a delay in response to the structure could be acceptable.

Commentary: With respect to reliability, Class III structures represent towers for which the owner / provider cannot tolerate any loss of the network / signal, due to either types of services provided or zero redundancy existing in the network. Beyond zero redundancy, failure could also potentially impact other services, such as power, water, transportation, etc. that are considered essential to human life. Finally, Structure Class III can be defined as when a high risk to life/safety exists in the event of a failure of the structure. The risk is exemplified when the public venue is not mobile (e.g. hospital, school, large public emergency gathering facility).

Return Periods of Structure Class I, II, and III

Each project shall determine the appropriate return period for each structure based on the project's risk and the project's location. Structures in Class I shall have a return period of 10 years and a probability of failure of 0.01. Structures in Class II shall have a return period of 100 years and a probability of failure of 0.001. Structures in Class III shall have a return period of 1000 years and a probability of failure of 0.0001. The return period shall be determined based on the project's risk and the project's location. The return period shall be determined based on the project's risk and the project's location. The return period shall be determined based on the project's risk and the project's location.

Class I

- Return Period 10 years
- Probability of failure = 0.01
- 1% reduction in wind pressure in each direction in Structure Class I
- Can be determined based on the return period and the probability of failure = 0.01

Class II

- Return Period 100 years
- Probability of failure = 0.001
- Can be determined based on the return period and the probability of failure = 0.001

Class III

- Return Period 1000 years
- Probability of failure = 0.0001
- 1% increase in wind pressure in each direction in Structure Class III
- Can be determined based on the return period and the probability of failure = 0.0001

The project shall determine the appropriate return period for each structure based on the project's risk and the project's location. The return period shall be determined based on the project's risk and the project's location. The return period shall be determined based on the project's risk and the project's location. The return period shall be determined based on the project's risk and the project's location. The return period shall be determined based on the project's risk and the project's location.

Definition of Risk Category – ASCE 7-10

[illegible]

Table 1.5-1 Risk Category of Buildings and Other Structures for Flood, Wind, Snow, Earthquake, and Ice Loads

Use or Occupancy of Buildings and Structures	Risk Category
Buildings and other structures that represent a low risk to human life in the event of failure	I
All buildings and other structures except those listed in Risk Categories I, III, and IV	II
Buildings and other structures, the failure of which could pose a substantial risk to human life.	III
Buildings and other structures, not included in Risk Category IV, with potential to cause a substantial economic impact and/or mass disruption of day-to-day civilian life in the event of failure.	
Buildings and other structures not included in Risk Category IV (including, but not limited to, facilities that manufacture, process, handle, store, use, or dispose of such substances as hazardous fuels, hazardous chemicals, hazardous waste, or explosives) containing toxic or explosive substances where their quantity exceeds a threshold quantity established by the authority having jurisdiction and is sufficient to pose a threat to the public if released.	
Buildings and other structures designated as essential facilities.	IV
Buildings and other structures, the failure of which could pose a substantial hazard to the community.	
Buildings and other structures (including, but not limited to, facilities that manufacture, process, handle, store, use, or dispose of such substances as hazardous fuels, hazardous chemicals, or hazardous waste) containing sufficient quantities of highly toxic substances where the quantity exceeds a threshold quantity established by the authority having jurisdiction to be dangerous to the public if released and is sufficient to pose a threat to the public if released. ^a	
Buildings and other structures required to maintain the functionality of other Risk Category IV structures.	

^aBuildings and other structures containing toxic, highly toxic, or explosive substances shall be eligible for classification to a lower Risk Category if it can be demonstrated to the satisfaction of the authority having jurisdiction by a hazard assessment as described in Section 1.5.2 that a release of the substances is commensurate with the risk associated with that Risk Category.

C r ASCE ASCE -10

Montgomery County Planning Department
Maryland-National Capital Park and Planning Commission

Re: Montgomery County Department of Technology Services
Radio Communications Services
Public Safety System Modernization Project
Site: Bretton Woods
15700 River Road
39°04'40.32"N, 77°20'14.66"W

This is in response to your comments and requests for information regarding Mandatory Referral file MR2018011, for Montgomery County RCS's proposed radio communication tower at 15700 River Road.

Supplementary Planning Requests:

Class III Structures

The proposed tower is designed as a Class III structure under ANSI/TIA-222-G ("RevG"). RevG provides guidelines on wind and weather conditions that dictate the forces a tower must be able to withstand. Class III structures represent towers for which the owner / provider cannot tolerate any loss, whether due to service impact or life / safety impact. As a result, Class III structures are designed to withstand catastrophic scenarios.

Under RevG, a Class III structure features a "return period" of 1700 years, meaning that the actual observed wind speed is statistically likely to meet or exceed the design wind load only once every 1700 years. It should be noted that even at the design wind load the tower will not necessarily experience a failure, only that the tower is designed to withstand such loading at a minimum.

These design wind loads significantly exceed the design loads of typical residential homes. As a result, they are capable of withstanding storms that would otherwise devastate nearby structures. They are frequently among the last structures standing after a catastrophic weather event. Examples of other structures that receive Class III categorization include elementary schools and child care facilities, assisted living facilities, prisons, and power and potable water treatment stations.

A summary of these categories is provided in attached documentation.

Location and Screening

Why is the tower located so close to River Road?

The location chosen is at or near the highest elevation available on the western half of the property, at approximately 234 feet AMSL. This is necessary to ensure both river and inland coverage are sufficient to meet the radio system's requirements. Moving the tower within the subject property results in less desirable locations for various reasons:

-)] Much of the property closer to the river is at a lower elevation, which would cause coverage degradation. The proposed location allows for acceptable coverage both on the river and inland.
-)] There are residential houses on the same side of Rileys Lock Road. The proposed location maximizes the distance between the tower and those houses while maintaining its position west of the golf course.
-)] The majority of the property is occupied by the golf course and is not appropriate or available for development.
-)] The eastern section of the property contains a protected forest covered by an existing conservation plan. A new tower could not be developed in that area without significant impact to the protected stands. The proposed location does not impact any protected stands or specimen trees.

Why is no landscaping proposed to the north or south of the compound?

The proposed landscaping screens the compound from the golf course to the east and from the existing residential houses to the west. The area immediately to the south of the proposed compound is not in use, and existing tree cover screens the occupied portions of the property further south. The existing tree cover along River Road adequately screens the compound from the road. One set of photo simulations included with this submission was based on photographs taken during the winter, and demonstrates that there is adequate evergreen coverage to screen the compound.

Other Requests

The following documentation has been provided, per request:

-)] Results of balloon test and photo simulations for this location.
-)] Coverage impact maps for the system and the proposed location.
-)] A summary of alternate locations that were considered and the reason for not choosing them.

Transportation Notes:

The survey shows a frontage-to-frontage right of way dedication of 80 feet at the subject location. This significantly exceeds the actual paved width at the site.

RCS agrees with staff, per our telephone conversations, that a bike path or shoulder installation would not be appropriate in combination with this proposal. Only approximately 20 feet of the right of way will be occupied, while the property has over 3,600 feet of frontage on River Road. Applicant will ensure that the driveway is in good condition, and that disturbed areas are returned to such, for use by cyclists.

MCDOT Requests:

- 1) The facility is unmanned and will not generate more than 10 visits per day. Regular peak hours trips are not implied by the proposal.
- 2) Only approximately 20 feet of the more than 3,600 feet of frontage on River Road are impacted by the proposal. As a result, there will be no impact on bicycle and pedestrian access or safety.
- 3) The 80 foot dedicated right of way is called out on the plan.
- 4) RCS agrees with staff, per our telephone conversations, that a bike path or shoulder installation would not be appropriate in combination with this proposal. Only approximately 20 feet of the right of way will be occupied, while the property has over 3,600 feet of frontage on River Road. Applicant will ensure that the driveway is in good condition, and that disturbed areas are returned to such, for use by cyclists.
- 5) Applicant will comply to the extent required by the project proposal.

If you have any questions or concerns, or need any further information regarding this application, please free to contact me.

Sincerely,

Justin David Blanset

Justin David Blanset
Network Building + Consulting

908.902.9110
jblanset@nbcllc.com

Montgomery County Planning Department
Maryland-National Capital Park and Planning Commission

Re: Montgomery County Department of Technology Services
Radio Communications Services
Public Safety System Modernization Project
Site: Bretton Woods
15700 River Road
39°04'40.32"N, 77°20'14.66"W

Please find enclosed a copy of the Council Resolution #19-214, amending #19-24.

On July 30, 2019, the Montgomery County Council reviewed the proposed 22-site plan for the Public Safety System Modernization Project. The site identified above is included in the plan reviewed by the Council.

The Council resolved to amend the Capital Improvement Plan to include the following language:

The Executive will locate these simulcast antenna sites at these identified sites to minimize costs to the County and meet the target cutover date of December 2020.

If you have any questions or concerns, or need any further information regarding this application, please free to contact me.

Sincerely,

Justin David Blanset
Network Building + Consulting

908.902.9110
jblanset@nbcllc.com

Resolution No.: 19-214
Introduced: July 9, 2019
Adopted: July 30, 2019

**COUNTY COUNCIL
FOR MONTGOMERY COUNTY, MARYLAND**

Lead Sponsors: Councilmembers Katz and Riemer

SUBJECT: Amendment to the FY19-24 Capital Improvements Program
Montgomery County Government
County Executive
Public Safety System Modernization (No. 340901)

Background

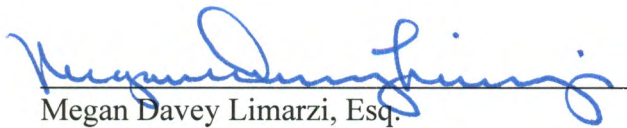
1. Section 302 of the Montgomery County Charter provides that the Council may amend an approved capital improvements program at any time by an affirmative vote of no fewer than six members of the Council.
2. This amendment identifies the specific 22 sites recommended by the County's radio tower vendor needed to meet the public safety standard of 95% coverage by December 2020.

Action

The County Council for Montgomery County, Maryland approves the following resolution:

The FY19-24 Capital Improvements Program of the Montgomery County Government is amended to revise the Public Safety System Modernization project (No. 340901), as reflected on the attached project description form.

This is a correct copy of Council action.


Megan Davey Limarzi, Esq.
Clerk of the Council



Public Safety System Modernization (P340901)

Category	General Government	Date Last Modified	01/11/19
SubCategory	County Offices and Other Improvements	Administering Agency	County Executive
Planning Area	Countywide	Status	Ongoing

EXPENDITURE SCHEDULE (\$000s)

Cost Elements	Total	Thru FY18	Rem FY18	Total 6 Years	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24	Beyond 6 Years
Planning, Design and Supervision	9,543	3,379	5,229	935	935	-	-	-	-	-	-
Construction	33,594	2,635	15,859	15,100	15,100	-	-	-	-	-	-
Other	67,615	67,615	-	-	-	-	-	-	-	-	-
TOTAL EXPENDITURES	110,752	73,629	21,088	16,035	16,035	-	-	-	-	-	-

FUNDING SCHEDULE (\$000s)

Funding Source	Total	Thru FY18	Rem FY18	Total 6 Years	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24	Beyond 6 Years
G.O. Bonds	55,591	25,752	16,739	13,100	13,100	-	-	-	-	-	-
Short-Term Financing	42,356	38,179	2,177	2,000	2,000	-	-	-	-	-	-
Current Revenue: General	9,826	6,719	2,172	935	935	-	-	-	-	-	-
Federal Aid	2,947	2,947	-	-	-	-	-	-	-	-	-
Contributions	32	32	-	-	-	-	-	-	-	-	-
TOTAL FUNDING SOURCES	110,752	73,629	21,088	16,035	16,035	-	-	-	-	-	-

OPERATING BUDGET IMPACT (\$000s)

Impact Type	Total 6 Years	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24
Maintenance	3,600	600	600	600	600	600	600
Program-Staff	1,200	200	200	200	200	200	200
Program-Other	1,584	264	264	264	264	264	264
NET IMPACT	6,384	1,064	1,064	1,064	1,064	1,064	1,064

APPROPRIATION AND EXPENDITURE DATA (\$000s)

Appropriation FY 20 Approp. Request	(96)	Year First Appropriation	FY09
Cumulative Appropriation	110,848	Last FY's Cost Estimate	110,848
Expenditure / Encumbrances	98,889		
Unencumbered Balance	11,959		

PROJECT DESCRIPTION

Public Safety System Modernization

This program will provide for phased upgrades and modernization of computer aided dispatch (CAD), law enforcement records management system (LE RMS), and voice radio systems used primarily by the County's public safety first responder agencies including Police, Fire and Rescue, Sheriff, Corrections and Rehabilitation, and Emergency Management and Homeland Security. The modernization will include replacement of the current CAD/LE RMS system, replacement of public safety mobile and portable radios, upgrade of non-public safety mobile and portable radios, and replacement of core voice radio communications infrastructure. The previously approved Fire Station Alerting System Upgrades project (CIP #451000) was transferred to this project in order to coordinate the upgrades with the new CAD system. The alerting system upgrades will modernize the fire station alerting systems at 43 existing work sites, maintaining the ability to notify fire and rescue stations of emergencies. The alerting system, including audible and data signals, is essential for the notification of an emergency and the dispatch of appropriate response units from the County. As voice, data, and video are beginning to converge to a single platform, this project will provide a pathway to a modern public safety support infrastructure that will enable the County to leverage technology advances and provide efficient and reliable systems for first responders. This project will follow the methodologies and strategies presented in the Public Safety Systems Modernization (PSSM) plan completed in July 2009.

— ADD TEXT AND MAP HERE —

COST CHANGE

Reduction in Federal Aid of \$96,000.

PROJECT JUSTIFICATION

The public safety systems require modernization. The CAD system is reaching the end of useful life and does not meet the County's current operational requirements, impacting the response time of first responders to 9-1-1 calls. The CAD Roadmap Study, completed in March 2009, recommended replacement of the system to address existing shortcomings and prepare for the next generation 9-1-1 systems. The manufacturer's support for the voice radio system has begun to be phased out as of December 31, 2009. Beyond that date, the manufacturer will only continue to provide system support on an as available basis, but will not guarantee the availability of parts or technical resources. The CAD modernization has initiated a detailed planning phase that included the use of industry experts to assist with business process analysis and to develop detailed business and technical requirements for the new CAD system. This process will allow the County to incorporate lessons learned and best practices from other jurisdictions. As more of the County's regional partners migrate to newer voice technologies, it will affect interoperable voice communications. To ensure that the County maintains reliable and effective public safety (voice radio) communications for the operations of its first responders and to sustain communications interoperability for seamless mutual aid among its regional partners, the County needs to implement a project to upgrade and modernize its portable and mobile radio units and subsequently the radio voice communications infrastructure. Acceleration of the public safety radio purchases was initiated to take advantage of a Partial Payment in Lieu of Re-Banding offer from Sprint/Nextel toward the financing of new, upgraded, P-25 compliant public safety radios and to meet the Federal Communications Commission (FCC) mandated 800 MHZ frequency rebanding requirements for nationwide public safety radio frequency interoperability. Now, the installation of the new core radio communication infrastructure is needed. The fire station alerting system upgrades were identified as a need under Section 5 of the MCFRS Master Plan (adopted by the County Council in October 2005) and detailed in the Station Alerting and Public Address (SA/PA) System for Fire/Rescue Stations, Rev 1, 2006. This project allows for the continuous and seamless functioning of the alerting systems within each fire station. A preliminary survey by DTS of existing conditions at all stations revealed system-wide concerns, including inadequate spare parts inventory and lack of available maintenance support for alerting systems.

OTHER

\$20.936 million was appropriated in FY11 to purchase P-25 compliant radios that allowed the County to complete immediate re-banding within the 800 MHz frequency as required by the FCC. The radio replacement program includes the M-NCPPC Montgomery County Park Police. The future purchase of public safety radios (other than to replace broken equipment) must be able to be supported by a P25 Phase-2 compliant infrastructure. The use of State of Maryland infrastructure will be aggressively pursued in

order to minimize costs to Montgomery County. The CAD procurement request will reflect the County's interest in maintaining the station alerting functionality at the current level or better through the CAD system. The RFP for CAD replacement will include replacement of the following systems: CAD, mapping, and the existing Law Enforcement Records Management and Field Reporting systems. Coordination with participating department/agencies and regional partners will continue throughout the project.

FISCAL NOTE

Funding in FY09 included Urban Area Security Initiative (UASI) grant funding of \$2.055 million and Fire Act grant funding of \$988,000. Funding schedule reflects FY18 supplemental adding \$32,000 in Contributions for additional equipment required for Local Fire Rescue Departments (LFRDs). FY18 funding switch is due to a transfer of Current Revenue General for \$283,000 from Technology Modernization (MCG) project offset by an equal reduction in Short Term Financing.

COORDINATION

PSSM Executive Steering Committee, Executive Program Directors, Department of Technology Services, Department of Police, Montgomery County Fire and Rescue Service, Sheriff's Office, Department of Correction and Rehabilitation, Office of Emergency Management and Homeland Security, Department of Transportation, Department of Liquor Control, Montgomery County Public Schools (MCPS), Maryland-National Park and Planning Commission (M-NCPPC) Park Police, Washington Metropolitan Area Transit Authority (WMATA)

Proposed new language for PSSM CIP:

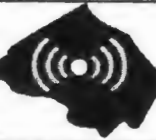
The core voice radio communications infrastructure replacement has identified the following 22 trunked simulcast antenna sites for the new system, as also shown on the map below:

Sites	Location
Bethesda	5202 River Road
Black Rock	17410 Black Rock Road
Bretton Woods	15700 River Road
Brookeville	4301 Brookeville Road
Burtonsville	16135 Old Columbia Pike
Carole Highlands	1616 Hannon Street
Castle Blvd.	14000 Castle Blvd.
Damascus	26154 Ridge Road
Dickerson	21200 Martinsburg Road
Elmer School	18500 Elmer School Road
Executive Office Building	101 Monroe Street.
Fire Station 16	111 University Blvd. East
Fire Station 30	9404 Falls Road
Germantown	20235 Observation Drive
Grosvenor	10101 Grosvenor Place
Hampshire Greens	15916 New Hampshire Avenue
ICC/Georgia Avenue	15912 Georgia Avenue
Montgomery County Correctional Facility	22880 Whelan Lane
Nuclear Regulatory Commission	11555 Rockville Pike
Penn Shop	18800 Penn Shop Road
Shady Grove	8620 Pleasant Road
White Oak	11215 Oakleaf Drive

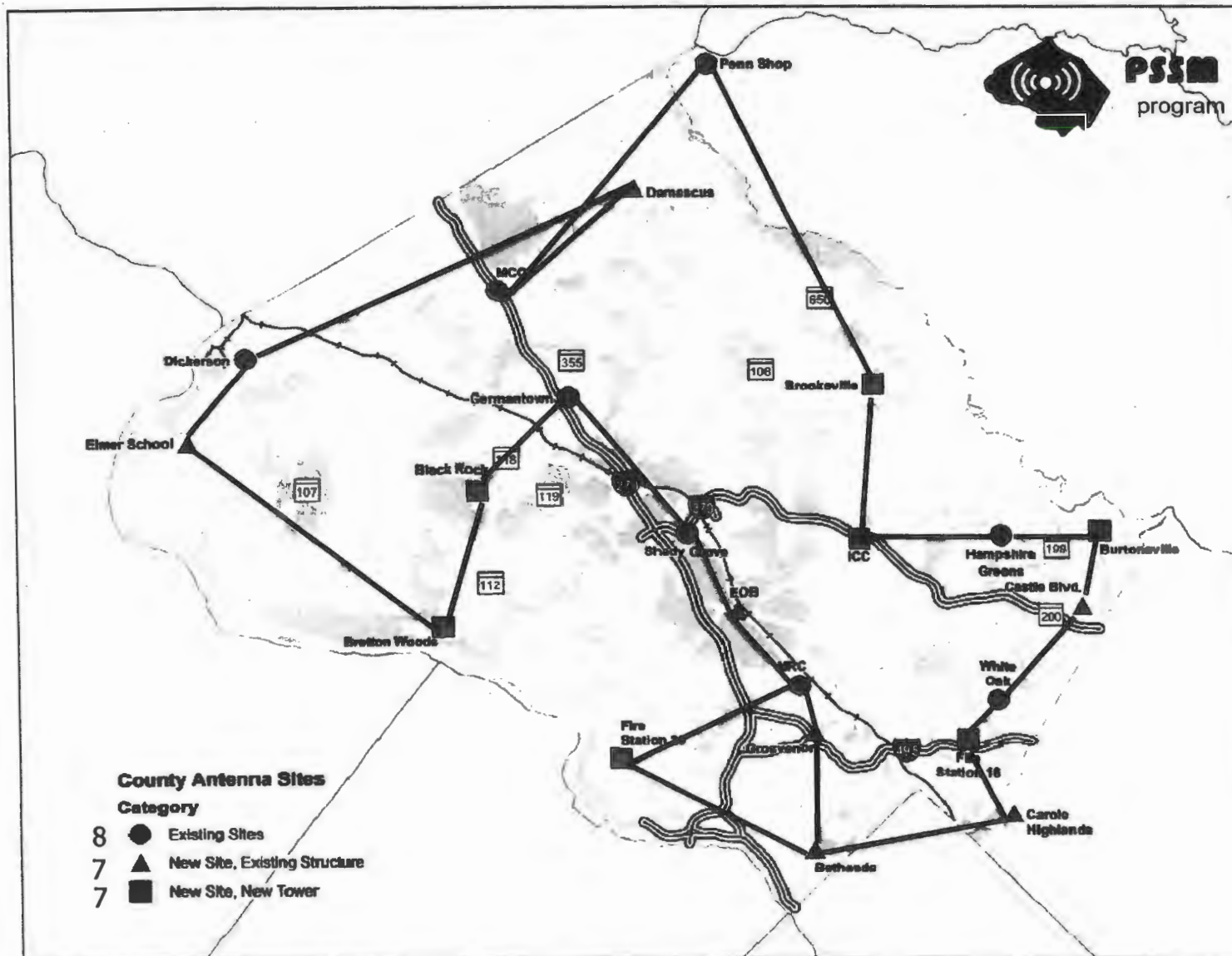
The Executive will locate these simulcast antenna sites at these identified sites to minimize costs to the County and meet the target cutover date of December 2020.



Radio System Sites & Microwave Links Map



PSSM
program



Attachment B



March 11, 2019

Re: MR2018-011 / RCS @ Bretton Woods

To Whom It May Concern:

In early 2018, a number of County organizations met with former County Executive Leggett to express concern about the location chosen for the emergency cell tower which would serve the northwestern portion of the County. At that time, a site for the tower at Bretton Woods had been chosen without adequate discussion with citizens, interested parties, and the Department of Technology Services (DTS).

The outcomes from that meeting were as follows:

- It was agreed that there is an absolute need for emergency cell service in the area.
- It was agreed that a cell tower was the best solution to provide the service.
- It was noted that the tower location was determined by the County's contractor who had not visited the site.
- DTS did not wish to explore other sites as they were ready to proceed with installation in the fall of 2018.
- Mr. Leggett strongly disapproved of the Bretton Woods site and clearly instructed DTS to find another location.

Working with DTS, a number of alternate sites were submitted to DTS for consideration. Several of these sites were assessed and found to be acceptable locations for the cell tower and were in more discreet locations.

Moving ahead to winter 2019, we find that the cell tower is not being relocated but will in fact be erected at the Bretton Woods site as initially proposed by DTS.

At this time, Heritage Montgomery joins a number of other concerned organizations and citizens by again requesting that the cell tower be moved to a site where it will not diminish the quality of the historic, cultural, and natural resources of several of the most viable economic tourism drivers in the County.

The current tower location will have a negative impact on economic development in the following ways:

- It will be plainly visible along several miles of River Road, a State-designated Maryland Scenic Byway (<https://www.roads.maryland.gov/index.aspx?Pageid=97>), numerous heritage sites, and the southern gateway to the Agricultural Reserve*. The tower is message-bearing, it sets a tone of randomness and obtrusive and careless planning in a very carefully developed and maintained landscape.
- River Road is the main access and thus the first experience for visitors travelling to the C&O Canal Towpath Trail*, which hosts 5.1 million visitors a year, and surrounding heritage sites. The tower will be the first impression and a prominent feature in the direct and indirect viewsheds of Riley's Lock*, Seneca Aqueduct*, Seneca Quarry*, Violette's Lock*, Seneca Schoolhouse*, Poole's Store*, Blockhouse Point*, McKee-Breshers Wildlife Management Area, a number of Montgomery Park* sites, designated Rustic Roads*, and Seneca Creek State Park*.
- The proposed tower site is in the Seneca National Historic District and will dominate the skyline. Attached, please find the National Register nomination which clearly lays out the significance of the area.
- Local establishments such as Rocklands Farm Winery and others have located their businesses in the area specifically because it offers a relaxed rural ambience for their guests to enjoy and is near the agricultural producers who supply their establishments. It is hard to sell visitors on sipping a glass of wine overlooking a bucolic landscape capped by a cell tower.
- Significant Native American* and African American* sites are being preserved and developed into cohesive trails and tours by Heritage Montgomery in response to increasing national and international demand. Most of the remaining sites of these cultural heritages are located in this area of the County.

There are three plans governing the spirit of actions which alter this landscape. They are the Montgomery County Preservation Plan, the Agricultural Reserve Master Plan, and the Heritage Tourism Alliance of Montgomery County (Heritage Montgomery) Master Plan. Each plan provides clear direction toward the goals of maintaining and protecting this area.

The tower will result in a diminished experience of the things we say we value.

Please reconsider this location so the directional catch phrase in our nationally renowned protected rural and forested Reserve doesn't become "Take a left about 2 miles past the cell tower, you can't miss it" rather than "Have you seen how beautifully the history, culture and natural resources are showcased in Montgomery County's working rural landscape."

As we prepare to submit over \$600,000 in FY 2020 grant requests for Montgomery County projects to the Maryland State Heritage Areas Authority – specifically for preservation, enhancement, and economic development through tourism – it is my hope that I will be able to tell our State funders that Montgomery County continues to be deeply committed to being the leader of conscientious stewardship in the State.

I believe that all interested parties can come together and design a solution that both provides emergency cell service and respects the context of the landscape in which it will placed.

I will be happy to give you a tour of the proposed alternate sites at your request.

Sincerely,

A handwritten signature in black ink, appearing to read "Emily Ross", followed by a long horizontal flourish line ending in a period.

Executive Director
director@HeritageMontgomery.org

* Denotes heritage tourism destinations which are eligible for or in most cases have received State project or capital funding through Heritage Montgomery.

Penn, Joshua

From: Caroline Taylor <caroline@mocoalliance.org>
Sent: Sunday, September 15, 2019 9:41 PM
To: Penn, Joshua
Cc: Mills, Matthew
Subject: Fwd: Bretton Woods Radio Tower - Process and Request... I am the one of the ones...

Josh,

See thread below. I am renewing the content of these emails in my comments to you as you prepare staff report. My thoughts are unchanged since these communications were sent.

Take note that Casey Anderson had taken time as well as staff members of Parks and the executive's administration to advance alternative sites. During that time and despite the expenditure of resources, DTS staff was moving ahead with the original site without revealing that they were doing so. They never had any intention of finding a more suitable site and aimed to box the county in. That's really outrageous.

C

Caroline Taylor, Executive Director
Montgomery Countryside Alliance
P.O. Box 24, Poolesville, Maryland 20837
301-461-9831
<http://mocoalliance.org/>

"Whether we and our politicians know it or not, Nature is party to all our deals and designs, and she has more votes, a larger memory, and a sterner sense of justice than we do." ~Wendell Berry

Begin forwarded message:

From: Caroline Taylor <caroline@mocoalliance.org>
Date: June 17, 2019 at 7:07:32 PM EDT
To: Nancy Navarro <councilmember.navarro@montgomerycountymd.gov>, councilmember.katz@montgomerycountymd.gov, councilmember.hucker@montgomerycountymd.gov, Hans Riemer <Councilmember.Riemer@montgomerycountymd.gov>, councilmember.albornoz@montgomerycountymd.gov
Cc: Joy.Nurmi@montgomerycountymd.gov, Cathy Matthews <catherine.matthews@montgomerycountymd.gov>, Dale Tibbitts <Dale.Tibbitts@montgomerycountymd.gov>, councilmember.friedson@mccouncilmd.lmhostedig.com, KKiplinger@kiplinger.com, Tom Gutierrez <TGutierrez@fcclaw.com>, director@heritagemontgomery.org
Subject: Fwd: Bretton Woods Radio Tower - Process and Request... I am the one of the ones...

Dear Council President and Council Committee Members,

I am sharing my concern regarding the representations made in the committee briefing packet (page 5) for the meeting that is to take place tomorrow afternoon regarding the siting of a public safety tower proximate to the southern gateway to the Agricultural Reserve. The packet indicates that only one person has raised issue with the original proposed site at Bretton Woods Country Club. That is incorrect. You may have received correspondence on this matter including from my colleague Sarah Rogers from the Maryland Heritage Tourism Alliance.

From first hearing of this potential tower site in early 2018 to today, stakeholders have sought to collaboratively and respectfully advance the siting of this tower to achieve both technical feasibility and geographical harmony. Significant missteps in public process were acknowledged by DTS. The email thread below contains a timeline of our participation through much of last year. It underscores that we did not "complain" about the site but rather, acknowledging urgency to supply needed system upgrade, worked to advance a mutually agreeable solution in a timely fashion and per County Executive Leggett's direction and public assurances, and DTS oversight.

Most recently we were advised by the current County Executive's office that a site location on the Bretton Woods property had been identified, was agreeable to the property owner, and can provide the system requirements and the compatibility to the historic rural community. Take note that we had suggested pursuing a site in that area early in 2018.

And so we ask that you consider this issue in the context of the efforts that have been expanded and are ongoing, and the importance of the unique nature of the rural geography where the tower site is being proposed - a designated historic district at a major gateway to the Reserve. **Please support the well advanced and continuing collaborative effort to best locate this tower.**

Respectfully,

C

CC: Joy Nurmi
Cathy Matthews
Andrew Friedson
Dale Tibbitts

Caroline Taylor, Executive Director
Montgomery Countryside Alliance
P.O. Box 24, Poolesville, Maryland 20837
301-461-9831
<http://mocoalliance.org/>

Chosen as "one of the best" charities in Greater Washington by the Catalogue for Philanthropy

"Whether we and our politicians know it or not, Nature is party to all our deals and designs, and she has more votes, a larger memory, and a sterner sense of justice than we do." ~ Wendell Berry

Begin forwarded message:

From: Caroline Taylor <caroline@mocoalliance.org>

Date: January 18, 2019 at 1:25:12 PM EST

To: Sonny Segal <sonny.segal@montgomerycountymd.gov>

Cc: Joy Nurmi <Joy.Nurmi@montgomerycountymd.gov>, Dale Tibbitts

<Dale.Tibbitts@montgomerycountymd.gov>, Debbie Spielberg

<Debbie.Spielberg@montgomerycountymd.gov>, Claire Iseli

<claire.iseli@montgomerycountymd.gov>, Tom Gutierrez <TGutierrez@fcclaw.com>,

Sarah Rogers <director@heritagemontgomery.org>, Dolores Milmo

<milmoe@me.com>, gwen.wright@montgomeryplanning.org, Joshua Penn

<joshua.penn@montgomeryplanning.org>

Subject: Fwd: Bretton Woods Radio Tower - Process and Request

Re: MR2018-011 / RCS @ Bretton Woods

Dear Mr. Siegel,

I have reviewed the newly submitted application materials with regard to the above referenced proposed tower location. I am, to say the least, disappointed in the representations made there and elsewhere with regard to the process employed to date relating to this tower siting.

Since early 2018 upon first learning of this issue, stakeholders have undertaken to both collaboratively and expeditiously identify a solution addressing appropriate technical, public process, and stakeholder concerns. Issues of transparency, accuracy and abridgment of process remain deeply concerning.

That said, we believe that the best path forward will be achieved through transparency, accuracy, and collaboration. Surely that is the hallmark of good governance.

Note:

For reference regarding the process undertaken last year to facilitate the tower siting, see below. The timeline below does not include a subsequent document request submitted on behalf of stakeholders. OTS Communication with stakeholders ceased after the balloon tests were conducted in May of last year.

Sincerely,

Caroline Taylor, Executive Director
Montgomery Countryside Alliance
P.O. Box 24, Poolesville, Maryland 20837
301-461-9831
<http://mocoalliance.org/>

Chosen as "one of the best" charities in Greater Washington by the Catalogue for Philanthropy

"Whether we and our politicians know it or not, Nature is party to all our deals and designs, and she has more votes, a larger memory,

and a sterner sense of justice than we do." ~ Wendell Berry

Begin forwarded message:

From: Sarah Rogers
<director@heritagemontgomery.org>
Date: April 30, 2018 at 1:30:59 PM EDT
To: Caroline Taylor <caroline@mocoalliance.org>
Cc: "Matthews, Catherine"
<Catherine.Matthews@montgomerycountymd.gov>,
"Nurmi, Joy" <Joy.Nurmi@montgomerycountymd.gov>,
Tom Gutierrez <TGutierrez@fcclaw.com>, Dolores
Milmoie <milmoie@mac.com>, Knight Kiplinger
<kkiplinger@kiplinger.com>
Subject: Re: Bretton Woods Radio Tower - Process and Request

Greetings All,
Calathea Special Park, located at 15000 River Road, is not an MHT designated site. As far as I can see it is part of the Heritage Area, a MNCPPC park, and is bounded by a scenic byway. There are no historic structures or easements.

Best,
Sarah

On Sat, Apr 28, 2018 at 7:08 AM, Caroline Taylor
<caroline@mocoalliance.org> wrote:

Thank you, as always, Cathy.
Take note that, in the time line, that last date entry should read April 27.

Warmly,

C

Caroline Taylor, Executive Director
Montgomery Countryside Alliance
P.O. Box 24, Poolesville, Maryland 20837
301-461-9831
<http://mocoalliance.org/>

Sent from my iPhone.

On Apr 27, 2018, at 9:41 PM, Matthews, Catherine
<Catherine.Matthews@montgomerycountymd.gov>
wrote:

Caroline,

Thank you for this summary. You have noted a couple of questionable statements — one attributed to me and one apparently to you. There also seems to be some confusion about the designation status of the Calathea Farm Park.

With this said, the community's participation in this process is appreciated and I'll continue to be available to help in this process when I can.

Joy,

Please let me know if/when there's another briefing scheduled for the Executive on Bretton Woods.

Catherine Matthews
Director
Upcounty Regional Office
(o) 240-777-8040
(m) 240-328-4587 ***note new number!***

Sent from my iPhone

On Apr 27, 2018, at 7:00 PM, Caroline Taylor <caroline@mocoalliance.org>
wrote:

Joy,

As a follow up to your call this afternoon, I wanted to clarify the process to date, our position, and seek a written response to our submitted alternative sites.

Our River Road Vicinity Radio Tower Timeline

1) January 10, 2018 -
MCA was first made
aware of the proposed
230' tower location.

2) January 11
- Contacted
Executive's office to
express concern with
the location and ask
for meeting.

3) January 30 - MCA,
Heritage Montgomery,
community members,
met with Executive,
OTS staff to discuss
siting process,
concerns and options.
Mr. Leggett expressed
significant concern
with the proposed site
at Bretton Woods
(Reserve gateway) and
directed staff to work
to find a better
alternative.

4) February 6 - MCA,
Heritage Montgomery,
community members,
OTS, Cathy Matthews
met and conducted a
site visit at Bretton
Woods. MCA,
renewing concern with
siting at that property,
agreed to research
and provide a list of
potential alternative
sites that met
specified criteria
provided by OTS.

5) February 9 - After
thorough research,
MCA provided a map
with locations and
elevations with criteria
specified. (see
attached). Take note:
neither this list nor our

site visit commentary indicated that moving the tower on the Bretton Woods property was a satisfactory outcome in addressing stakeholder concerns.

6) February 13 - MCA, Joy Nurmi, OTS staff had a phone conference to discuss the mapped alternative sites. MCA was told that these would be vetted with Motorola. No further communication regarding the alternative sites was received.

7) March 28 - MCA received email from Darnestown Civic Association relaying community member concern resulting from being informed by OTS staff that MCA had recommended that the tower location be moved on Bretton Woods property to area directly behind Osbourne home.

8) April 2 - MCA email requesting status update

9) April 3 - Cathy Matthews forwards email regarding status from Judy Miller that read (in part):

I would like to give you an update on the Bretton Woods proposed tower location. The Radio project was asked by the Countryside Alliance to consider moving the tower further from River Rd. We chose an alternate location, however after looking at

it on a map, it turned out it was in direct view of a resident's rear window... On Tuesday, 4/10, 1-4 pm we plan to do a balloon test for one or more proposed alternate locations. The balloon(s) will be up for the entire three hours. I will update you once we select a proposed alternate. This were sites on Bretton Woods property.

10) April 6 - Meeting with OTS, Bretton Woods neighbors, Motorola - MCA was not invited but nonetheless attended at the request of community members. Stakeholders were told that the OTS staff were directed to site the tower on the Bretton Woods property by Cathy Matthews per the direction of the County Executive. MCA staff made inquiry with Joy Nurmi who relayed that this was not accurate and the alternative site location process was not complete. MCA staff relayed content of the brief call to Judy Miller and those assembled. Ms. Miller indicated that the balloon testing at Bretton Woods would be cancelled. Motorola representatives said that a number of the alternative sites were potentially technically satisfactory. We were told that the vetting

process would
continue.

11) April 22 - MCA
receives phone call
from Joy Nurmi asking
for clarification as she
was informed by OTS
staff that MCA had
stated that no balloon
tests could occur on
the Bretton Woods
Property. I was
surprised at this
assertion and clarified
that, rather, we have
been waiting, per the
direction at the April 6
meeting, for the word
on the status of the
eligibility of the
alternative sites. I
indicated that a
balloon test is not up
to us to allow or
disallow but that other
sites should not be
dismissed without
clear appropriate
rationale and that
other testing would be
appropriate.

That was long but
necessary to be clear
on the process that
has been undertaken
to date. Upon first
learning of the tower
site at Bretton Woods,
we have endeavored
to provide timely and
fact based input aimed
toward serving public
interest. Much in the
way of planning and
expenditure of both
public and private
funding have been
made toward
protecting the historic
Seneca corridor...
dictating great care be

undertaken in this siting process.

Our ask:

Please provide a current status of the review, including rationale if dismissed, of the sites that we provided as possible alternatives.

Joy, we did discuss one of the alternative locations - the Calathea Farm Park location - briefly today and I understood that Planning Commission Chair Casey Anderson communicated that that was not a viable as it is a historic Civil War site. I noted that we had taken care to avoid designated or culturally known historic areas in our siting process but that I would look into it. My research reveals the following: neither [MHT nor P & P](#) have that area listed as historic. I did find that the property was on a [list of possible locations](#) to host the confederate statue that was removed from Rockville. That statue, as you know, has found home at White's Ferry. It may be that the inclusion on the list presented some confusion. **Take note that that Bretton Woods property, however, is entirely located**

**within the [nationally
designated Seneca
Historic District.](#)**

Respectfully,

C

<Bretton Woods alts 2
mi radius ct.pdf>

<Criteria-description-
Bretton Woods 2 miles
alternative sites for
review.pdf>

--

Sarah Rogers
Executive Director
Heritage Tourism Alliance
12535 Milestone Manor Lane
Germantown, Md. 20876
301-515-0753

Penn, Joshua

From: Caroline Taylor <caroline@mocoalliance.org>
Sent: Sunday, September 15, 2019 9:32 PM
To: Penn, Joshua
Subject: Fwd: No, I am the one-- Bretton Woods Radio 230' Radio Tower -- Please find another, less visible location

Another...

C

Caroline Taylor, Executive Director
Montgomery Countryside Alliance
P.O. Box 24, Poolesville, Maryland 20837
301-461-9831
<http://mocoalliance.org/>

"Whether we and our politicians know it or not, Nature is party to all our deals and designs, and she has more votes, a larger memory, and a sterner sense of justice than we do." ~Wendell Berry

Begin forwarded message:

From: "'Anne Sturm' via Info" <info@mocoalliance.org>
Date: June 17, 2019 at 9:27:56 AM EDT
To: Councilmember.Friedson@montgomerycountymd.gov
Cc: dale.tibbitts@montgomerycountymd.gov
Subject: No, I am the one-- Bretton Woods Radio 230' Radio Tower -- Please find another, less visible location
Reply-To: Anne Sturm <annets1@aol.com>

Dear Councilmember Friedson,

In the Agriculture Reserve, Park and Planning and the Council have been sensitive to the visibility of cell towers. I understand totally the importance of the County's emergency services radio system. But, I do not understand why County staff pressed forward with this very problematic site when Co. Ex. Leggett, after a stakeholder's meeting, asked that alternative sites be

identified. It is my understanding that contrary to what the County Council has been told, the County executive and staff have heard from numerous residents, adjacent neighbors, community, and historic preservation groups asking that the tower be placed in a less prominent location. As someone who has "used" that area a lot (bluebird and martin trail at Bretton Woods, camps for children on the course and in that area) I hope that the beautiful "feeling" can be preserved for all to enjoy.

Since there are a lot of us that care, I AM WRITING TO ASK FOR YOU TO CARE TOO.

Thank you for your hard work on behalf of our county. Your thoughtful consideration of this matter will be most appreciated.

Sincerely,

Anne Sturm
P.O. Box 341
Barnesville, Md. 20838

Penn, Joshua

From: Caroline Taylor <caroline@mocoalliance.org>
Sent: Sunday, September 15, 2019 9:33 PM
To: Penn, Joshua
Subject: Fwd: We are also the "ONEs" who want the Bretton Woods radio tower moved

An adjacent neighbor...

C

Caroline Taylor, Executive Director
Montgomery Countryside Alliance
P.O. Box 24, Poolesville, Maryland 20837
301-461-9831
<http://mocoalliance.org/>

"Whether we and our politicians know it or not, Nature is party to all our deals and designs, and she has more votes, a larger memory, and a sterner sense of justice than we do." ~Wendell Berry

Begin forwarded message:

From: "'Judy Walsh' via Info" <info@mocoalliance.org>
Date: June 17, 2019 at 9:22:10 AM EDT
To: <councilmember.katz@montgomerycountymd.gov>, <councilmember.hucker@montgomerycountymd.gov>, <Councilmember.Albornoz@montgomerycountymd.gov>, <councilmember.navarro@montgomerycountymd.gov>, <Councilmember.Friedson@montgomerycountymd.gov>, <Dale.Tibbitts@montgomerycountymd.gov>, <Susan.Farag@montgomerycountymd.gov>
Subject: We are also the "ONEs" who want the Bretton Woods radio tower moved
Reply-To: "Judy Walsh" <jjaw@verizon.net>

The community of Seneca was never given the chance to supply input about the PSRS tower at Bretton Woods until it was already a "done deal". The whole system had been designed before any community input was sought. Having the tower near River Road & Riley's Lock Rd would definitely be an eyesore.

We've been working at finding a better solution for the last year, thanks to help from the Montgomery Countryside Alliance, and others.
And we thought the County agreed with us when Ike Leggett asked that alternative sites be examined.

It's my understanding that an alternate solution has been found on the Bretton Woods property that would place the tower near their other communication tower, which is virtually invisible to neighbors and those travelling on River Road.

We respectfully ask that the County continue to pursue the alternate site and abandon the original site at Bretton Woods.

Sincerely,

John and Judith Walsh
16005 Seneca Rd.

Penn, Joshua

From: Caroline Taylor <caroline@mocoalliance.org>
Sent: Sunday, September 15, 2019 9:30 PM
To: Penn, Joshua
Subject: Fwd: Bretton Woods Radio 230' Radio Tower

Josh,

I don't want to send a bunch of emails to you but I do want to show you that there were folks that have written on this issue. There was a fair amount of frustration that the process was not transparent and that representations were made about opposition that were inaccurate. See below.

C

Caroline Taylor, Executive Director
Montgomery Countryside Alliance
P.O. Box 24, Poolesville, Maryland 20837
301-461-9831
<http://mocoalliance.org/>

"Whether we and our politicians know it or not, Nature is party to all our deals and designs, and she has more votes, a larger memory, and a sterner sense of justice than we do." ~Wendell Berry

Begin forwarded message:

From: "Mary Wolfe" <malmaw117@gmail.com>
Date: June 17, 2019 at 4:54:04 PM EDT
To: <councilmember.katz@montgomerycountymd.gov>, <councilmember.hucker@montgomerycountymd.gov>, <Councilmember.Albornoz@montgomerycountymd.gov>, <councilmember.navarro@montgomerycountymd.gov>, <Dale.Tibbitts@montgomerycountymd.gov>, <Susan.Farag@montgomerycountymd.gov>
Subject: Bretton Woods Radio 230' Radio Tower

Dear Council Members and Staff:

As a 50-year resident of Montgomery county, I am concerned about the plans to site a 230' radio tower with flashing nighttime lighting at Bretton Woods, which is a gateway to the Agricultural Reserve and a designated heritage area. I don't believe a robust process was followed to consult the public, and the depth of residents' concerns has been downplayed. Citizens have been working for a year plus to locate a place for the tower that would be technically viable, but not as negatively impactful on the area. A site meeting the criteria has been identified by the County Executive's staff and they will help facilitate the process while the full system is being built out. Please reconsider the current plan and change the location of the tower to the location identified by the County Executive.

Sincerely,

Mary Wolfe
111 Beckwith St.
Gaithersburg, MD 20878

Attachment C

From: [Ossont, Greg](#)
To: [Boyd, Fred](#)
Cc: [Penn, Joshua](#); [Weaver, Richard](#); [Kronenberg, Robert](#); [Klinger, Dieter](#); [Segal, Sonny](#)
Subject: RE: pssm brettton woods
Date: Wednesday, March 13, 2019 2:41:25 PM

Fred, thanks for reaching out.

Please pull this item from the agenda.

Thanks again,

Greg Ossont
Deputy Director
Department of General Services
240-777-6192
greg.ossont@montgomerycountymd.gov

From: Boyd, Fred <fred.boyd@montgomeryplanning.org>
Sent: Wednesday, March 13, 2019 10:27 AM
To: Ossont, Greg <Greg.Ossont@montgomerycountymd.gov>
Cc: Penn, Joshua <joshua.penn@montgomeryplanning.org>; Weaver, Richard <richard.weaver@montgomeryplanning.org>; Robert Kronenberg <robert.kronenberg@montgomeryplanning.org>
Subject: pssm brettton woods

good morning.....

...hope you all are bearing up over there. I wanted to let you know that we have scheduled a mandatory referral public hearing for the pssm brettton woods project on march 28. we are aware of the controversial nature of this project and aware of some unhappiness in the rural community about this project at this location. we are also aware of the executive's desire to work through some of the outreach issues that have arisen and to look more comprehensively at the pssm tower projects. do you want us to keep this item on the board's agenda? we would need to post a staff report on march 20 in anticipation of the march 28 public session.

please let me know how you'd like to proceed.

fred

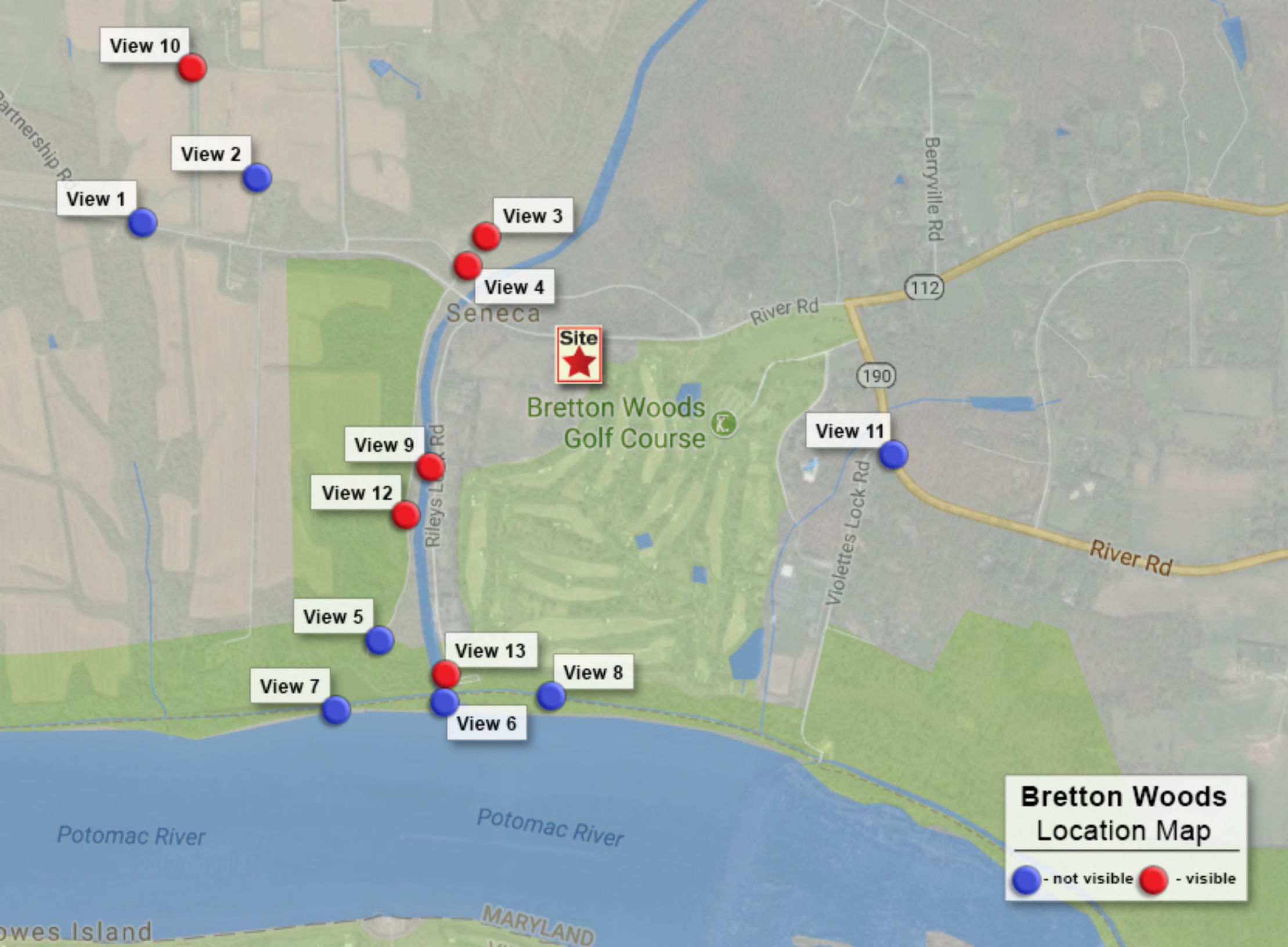
Frederick Vernon Boyd
Community Planner
Area 3 Planning Team
Montgomery County Planning Department

8787 Georgia Avenue
Silver Spring, Maryland 20910

301 495 4654

fred.boyd@montgomeryplanning.org

Attachment D



View 10

View 2

View 1

View 3

View 4



Bretton Woods
Golf Course

View 9

View 12

View 5

View 7

View 13

View 8

View 6

View 11

Bretton Woods Location Map

- not visible - visible



Site Name: Bretton Woods
Wireless Communication Facility
15700 River Road
Germantown, MD 20874

Photograph Information:
View 1 - Seneca Schoolhouse Museum
View from the West
SITE NOT VISIBLE

NB+CTM
TOTALLY COMMITTED.



Site Name: Bretton Woods
Wireless Communication Facility
15700 River Road
Germantown, MD 20874

Photograph Information:
View 2 - River Road
View from the Northwest
SITE NOT VISIBLE

NB+CTM
TOTALLY COMMITTED.



Site Name: Bretton Woods
Wireless Communication Facility
15700 River Road
Germantown, MD 20874

Photograph Information:
View 3 - Old River Road
View from the Northwest
Showing the Existing Site

NB+CTM
TOTALLY COMMITTED.



Site Name: Bretton Woods
Wireless Communication Facility
15700 River Road
Germantown, MD 20874

Photograph Information:
View 3 - Old River Road
View from the Northwest
Showing the Proposed Site

NB+CTM
TOTALLY COMMITTED.



Site Name: Bretton Woods
Wireless Communication Facility
15700 River Road
Germantown, MD 20874

Photograph Information:
View 4 - Old River Road
View from the Northwest
Showing the Existing Site

NBC
TOTALLY COMMITTED.



Site Name: Bretton Woods
Wireless Communication Facility
15700 River Road
Germantown, MD 20874

Photograph Information:
View 4 - Old River Road
View from the Northwest
Showing the Proposed Site


NBC
TOTALLY COMMITTED.



Site Name: Bretton Woods
Wireless Communication Facility
15700 River Road
Germantown, MD 20874

Photograph Information:
View 5 - Tschiffely Mill Road
View from the South
SITE NOT VISIBLE

NBC
TOTALLY COMMITTED.



Site Name: Bretton Woods
Wireless Communication Facility
15700 River Road
Germantown, MD 20874

Photograph Information:
View 6 - Riley's Lock Road
View from the South
SITE NOT VISIBLE


NB+CTM
TOTALLY COMMITTED.



Site Name: Bretton Woods
Wireless Communication Facility
15700 River Road
Germantown, MD 20874

Photograph Information:
View 7 - Waterfront Trail
View from the Southwest
SITE NOT VISIBLE


NB+CTM
TOTALLY COMMITTED.



Site Name: Bretton Woods
Wireless Communication Facility
15700 River Road
Germantown, MD 20874

Photograph Information:
View 8 - Waterfront Path
View from the South
SITE NOT VISIBLE


NBC
TOTALLY COMMITTED.



Site Name: Bretton Woods
Wireless Communication Facility
15700 River Road
Germantown, MD 20874

Photograph Information:
View 9 - Riley's Lock Road
View from the Southwest
Showing the Existing Site

NB+C
TOTALLY COMMITTED.



Site Name: Bretton Woods
Wireless Communication Facility
15700 River Road
Germantown, MD 20874

Photograph Information:
View 9 - Riley's Lock Road
View from the Southwest
Showing the Proposed Site

NBC
TOTALLY COMMITTED.



Site Name: Bretton Woods
Wireless Communication Facility
15700 River Road
Germantown, MD 20874

Photograph Information:
View 10 - Unnamed Road
View from the Northwest
Showing the Existing Site

NB+CTM
TOTALLY COMMITTED.



Site Name: Bretton Woods
Wireless Communication Facility
15700 River Road
Germantown, MD 20874

Photograph Information:
View 10 - Unnamed Road
View from the Northwest
Showing the Proposed Site

NB+CTM
TOTALLY COMMITTED.



Site Name: Bretton Woods
Wireless Communication Facility
15700 River Road
Germantown, MD 20874

Photograph Information:
View 11 - River Road &
Violette's Lock Road
View from the East
SITE NOT VISIBLE

NB+CTM
TOTALLY COMMITTED.



Site Name: Bretton Woods
Wireless Communication Facility
15700 River Road
Germantown, MD 20874

Photograph Information:
View 12 - Schffley Mill Road
View from the Southwest
Showing the Existing Site

NBC
TOTALLY COMMITTED.



Site Name: Bretton Woods
Wireless Communication Facility
15700 River Road
Germantown, MD 20874

Photograph Information:
View 12 - Schffley Mill Road
View from the Southwest
Showing the Proposed Site

NBC
TOTALLY COMMITTED.



Balloon Visible Behind
Tree Branch

Site Name: Bretton Woods
Wireless Communication Facility
15700 River Road
Germantown, MD 20874

Photograph Information:
View 13 - Riley's Lock
View from the Southwest
Showing the Existing Site

NB+CTM
TOTALLY COMMITTED.



Site Name: Bretton Woods
Wireless Communication Facility
15700 River Road
Germantown, MD 20874

Photograph Information:
View 13 - Riley's Lock
View from the Southwest
Showing the Proposed Site

NB+CTM
TOTALLY COMMITTED.